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Office of Enforcement
Compliance & Environmental
Justice

Iver Johnson
HW Specialist
Department of Environmental Quality
1520 E. Sixth Avenue
P. O. Box 200901
Helena, Montana 59620-0901

May 29, 2008

VIA HAND DELIVERY

Re: 2008 Cleaning and Demolition Project, Asarco East Helena Plant
Final Work Plan

Dear Mr. Johnson:

On May 22, 2008, the Montana Department of Environmental Quality (Department) provided Asarco conditional approval of the 2008 Cleaning and Demolition Project, Asarco East Helena Plant, Introduction, Project Summary, and Reporting, and 2008 Work Plan. In accordance with your request, I am submitting a redlined and final version of the Work Plan that reflect the agreed upon changes, as further described in Asarco's April 18, 2008 and May 15, 2008 responses to comments. Please replace the appropriate sections of the March 14, 2008 report with the attached documents.

We appreciate the Department's and EPA's review and simultaneous approval of the 2008 Cleaning and Demolition Work Plan and 2008 Interim Measures Work Plan Addendum (May 2008) that were submitted to each agency. We look forward to working with each agency as we begin to examine the scope of work that can be accomplished during the 2008 calendar year.

If you have any questions or wish to visit the facility, please contact me at 227-4529.

Sincerely,

A handwritten signature in cursive script that reads "Jon Nickel".

Jon Nickel

Enclosure

cc: Linda Jacobson

**2008 CLEANING AND DEMOLITION PROJECT
ASARCO EAST HELENA PLANT**

INTRODUCTION, PROJECT SUMMARY, AND REPORTING

Prepared by:
ASARCO LLC
P.O. Box 1230
East Helena, MT 59635

AND

2008 WORK PLAN

Prepared by:
URS Corporation/Cleveland Wrecking Company
614 East Edna Place
Corvina, CA 91723

March 12, 2008
Final May 29, 2008

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(MARCH 2008)

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2008 CLEANING AND DEMOLITION PROJECT WORK PLAN

ASARCO EAST HELENA PLANT

INTRODUCTION, PROJECT SUMMARY, AND REPORTING

1.0 INTRODUCTION

Asarco Incorporated, now known as ASARCO LLC (Asarco), and the Montana Department of Environmental Quality (Department) entered into a 2005 Consent Decree (2005 Decree), on February 15, 2005, to resolve alleged violations of the Montana Hazardous Waste Act (MHWa) and Administrative Rules of Montana (ARM). The 2005 Decree required Asarco to develop and implement yearly Work Plans designed to remove, store, and properly dispose or recycle all remaining hazardous waste and recyclable materials from identified process units located within Asarco's East Helena Plant. The department acknowledges that Asarco accomplished all of the activities contained in the 2005 Decree Work Plans, except for removing and properly disposing hazardous waste being stored in Subpart DD containment structures, cleaning the thawhouse building, and cleaning of certain portions of the acid plant contact section.

On October 2, 2007, Asarco and the Department entered into a 2007 Administrative Order on Consent (2007 Order), which allows Asarco to continue with the cleanup processes established under the Work Plan provisions of the 2005 Decree. The 2007 Order requires Asarco to develop and implement a yearly Work Plan for calendar years 2007-2012 to remove, store, and properly dispose or recycle all remaining hazardous waste and/or secondary material located in the process units, pollution control devices, and storage units and other identified areas of the facility. To the extent that Asarco disposes of hazardous waste and/or secondary material, it will do so either by removal to an approved CAMU at the facility or by removal to another facility according to proper regulatory procedures under MHWa or its regulations there under.

Asarco submitted and completed the provisions outlined in the August 2007 Cleaning and Demolition Work Plan, as further defined as the Phase IV, Stage 1 area. The March 2008 Comprehensive List of Process Units and Other Areas of Interest describes the past cleaning efforts already undertaken at the East Helena Plant. A copy of the March 2008 Comprehensive List of Process Units and Other Areas of Interest is attached as Appendix A. Asarco recognizes that this comprehensive list may need to be modified as a result of future investigations and/or inventories. This list does not necessarily constitute a complete inventory of areas of interest (AOIs) at the smelter complex, nor does it describe the current clean-up status at these areas. The Department shall maintain, on file, a complete inventory of AOIs and their current clean-up status. The 2008 Cleaning and Demolition Project Work Plan builds upon Asarco's past efforts for removing and properly managing materials.

The 2008 Cleaning and Demolition Project Work Plan describes the management activities scheduled for this calendar year. Asarco has selected URS/Cleveland Wrecking Company (URS/CWC) to conduct the 2008 Cleaning and Demolition Work Plan, which is contained within this submittal. For the

purposes of this 2008 Cleaning and Demolition Project Work Plan, the environmental cleaning, demolition, and handling procedures are primarily highlighted. URS/CWC will employ a systematic approach for cleaning, demolition, hauling, and disposition of the removed materials from identified process locations. The specific work practices associated with these activities are fully described within the accompanying URS/CWC Work Plan.

On February 13, 2008, Asarco submitted the Cover System Design Report to EPA. On February 26, 2008, Asarco submitted the Interim Measures Addendum Work Plan (Demolition Foot Print Exposed Areas Soil Sampling, Excavation, and Confirmatory Sampling Work Plan and Blast Furnace and Monier Flue Cleaning, Demolition, and Soil Sampling Work Plan) to EPA. The ability to execute this 2008 Cleaning and Demolition Project Work Plan is dependent upon sequencing the implementation of these two previously submitted both Work Plans. EPA must provide approval of the Interim Measures Addendum Work Plan ~~these two Work Plans~~ no later than May 1, 2008 for the 2008 Cleaning and Demolition Project Work Plan activities to proceed. If EPA approval is received on or before May 1, 2008, Asarco will mobilize and begin the 2008 Cleaning and Demolition Program on or before June 11, 2008.

To facilitate removal of material under this Work Plan, Asarco has prepared the following decision matrix table to determine the priority in managing removed material from the East Helena Plant.

DECISION MATRIX FOR MAJOR PROCESS LOCATIONS

Process Location	Criteria For Prioritizing Management of Recyclable material			
	Level of Contamination	Volume of Recyclable material	Degree of Exposure	Condition of Structures
Non-Production	Low	Low	Low	Good
Tanks	Low	Low	Moderate	Good
Ore Storage	Low	Low	Low	Good
Ore Receiving	Moderate	Moderate	Low	Good
Sinter Plant	Moderate	High	Low	Fair
Acid Plant	Moderate	Moderate	Low	Good
Blast Furnace	Moderate	Moderate	High	Fair
Dross Plant	High	High	Moderate	Good
Former Zinc Plant	High	Moderate	High	Poor
Water Treatment	Low	Moderate	Low	Good

The materials from the process locations that are shaded in the preceding matrix table were removed under the previous cleaning and demolition work plans, with the exception of the contact section of the acid plant, which is scheduled for cleaning and demolition in 2008. Based upon the process locations that have not been completed, Asarco proposes to focus the 2008 Cleaning and Demolition Project activities within the areas further described in the accompanying URS/CWC Work Plan.

2.0 PROJECT SUMMARY

Phase IV, Stage 2 Work Areas

The Phase IV, Stage 2 work areas contain structures that are scheduled to be cleaned and demolished during calendar year 2008, as further described in the following table. ~~that must be cleaned and demolished in order to facilitate construction of the 2008 cover system and to address the structures that contain the remaining process materials, as further described in the following table.~~

Phase IV, Stage 2

- | | |
|------------------------------|--|
| ○ Blast Furnace Flue | ○ Truck Loading & Spray Dryer Building |
| ○ Acid Plant Cooling Towers | ○ Sand Filters |
| ○ 400' D&L Stack | ○ 200' Acid Stack |
| ○ Acid Plant Contact Section | ○ Monier Flue |
| ○ Blast Furnace Baghouse | ○ 425' Blast Furnace Stack |
| ○ Ore Unloading Bins | ○ Sample Mill |
| ○ Crushing Mill | ○ Auto Shop |
| ○ Pump Tank Building | ○ Main Blower Building |
| ○ Acid Plant Shop | ○ Ringling Dust Building |

Asarco originally anticipated including the cleaning and demolition of the blast furnace flue and Monier flue within the 2008 Cleaning and Demolition Project Work Plan. However, on March 29, 2007, EPA requested that Asarco prepare a separate interim measures (IM) work plan for these flue systems. On February 26, 2008, Asarco submitted an Interim Measures Work Plan Addendum (IMWPA) to EPA that included: 1) existing soil data, 2) demolition footprint exposed soils sampling, and 3) exposed soils removal criteria and confirmatory sampling. On May 8, 2008, Asarco submitted a revised IMWPA to EPA that reflected responses to EPA comments and to the technical discussions that took place on May 2, 2008 between Asarco, the Department, and EPA. On May 21 and 22, 2008, Asarco provided EPA with supplemental information to the revised IMWPA. On May 22, 2008, EPA approved the revised IMWPA. This IM Work Plan IMWPA will govern all future actions within these flue systems.

3.0 MANAGEMENT OF REMOVED MATERIALS

To the extent that Asarco disposes of hazardous waste and/or secondary material, it will do so either by removal to the approved CAMU Phase 2 cell at the facility or by removal to another facility according to proper regulatory procedures under MHW or its regulations there under.

4.0 INTERIM MEASURE PROGRAM

On May 5, 1998, ASARCO and the United States Environmental Protection Agency (EPA) entered into a Consent Decree (RCRA Consent Decree, U.S. District Court, 1998) to initiate the corrective action process in accordance with the Resource Conservation and Recovery Act (RCRA) and the Clean

Water Act (CWA). A major area of overlap between the RCRA Consent Decree and the Administrative Order on Consent involves the backfilling and interim capping of areas in which cleaning and demolition had occurred and where exposed soils were present.

On February 13, 2008, Asarco submitted to EPA the Cover System Design Report that presented the conceptual design for a site wide cover system at the East Helena Plant. The Cover System Design Report presents a conceptual design for a site facility cover system for the East Helena Plant. This system is presented as an interim action that will ultimately become part of the permanent remedy when remaining RCRA Consent Decree activities, including the Phase II RFI and Corrective Measures Study have been completed, and the final remedy for the site has been selected. Asarco proposes to proceed with the construction of the overall cover system in incremental phases. For 2008, the cover system will only be constructed in areas impacted by the 2008 cleaning and demolition program, eliminating the need for placement of interim caps in these areas. Future cover system construction will occur in similar stages. Sheet Number 13 of the attached URS/CWC 2008 Cleaning and Demolition Work Plan illustrate the areas in which the permanent cover system is being proposed following the 2008 cleaning and demolition. Asarco intends to address the permanent cover system and interim capping by:

Implementing the Cover System Design Report components for the majority of areas subject to the 2008 Cleaning and Demolition Work Plan;

- Identifying the locations in which backfilling using fumed slag may be required to achieve proper site stabilization and drainage prior to installing the interim cap;
- Presenting the locations that will require interim capping;
- Providing the interim capping techniques, procedures, and materials that will be used to inhibit infiltration of precipitation within the demolition areas; and
- Outlining the general, short-term maintenance for the interim cap.

The 2008 Cleaning and Demolition Project Work Plan involves removing structural components to existing building grade. The remaining features, including existing foundations and concrete slabs that are not removed, will be incorporated under a Cover System or an interim cap.

The areas subjected to 2008 Cleaning and Demolition Project Work Plan will undergo final cleaning (see Section 4.1). Select areas may be backfilled with fumed slag to achieve proper drainage prior to installing the interim cap (Section 4.2). The locations requiring interim capping will be identified (Section 4.3) and the techniques, procedures, and material used for installing will be outlined (Section 4.4). The general, short-term maintenance of the interim cap will be necessary to ensure integrity (Section 4.5).

4.1 Final Cleaning Action

The final cleaning of the 2008 Cleaning and Demolition Project will involve a three-phased approach. First, the exposed concrete footprint will undergo a rough cleaning using conventional scraping and shoveling methods. Although this cleaning technique provides an efficient method for removing residual materials, it cannot achieve the prescribed level of cleanliness. To supplement conventional cleaning methods, the concrete footprint will be mechanically swept. The use of the mechanical sweeper will remove surface materials that may not be completely removed using conventional

cleaning techniques. Finally, the concrete footprint will be cleaned using a high-velocity vacuum. This final cleaning method will remove any fine material, particularly along the interfaces between the concrete floor and building columns, fan foundations, and support walls.

4.2 Backfill Locations and Fumed Slag Composition

Once final cleaning activities are complete, certain areas may be graded and, as necessary, backfilled to achieve proper drainage prior to placement of ~~the permanent cover system or an interim cap~~. Asarco will use on-site fumed slag as backfill. The fumed slag may be placed in areas that are below grade or require drainage assistance. The fumed slag will serve as the subgrade for the interim cap, over which an engineered cap comprised of non-woven geotextile and RPE will be placed. The fumed slag has been used as a grading material at the plant site in the past and possesses good physical characteristics for fill or sub-foundation uses (granular material and compacts wells). Although fumed slag contains elevated total metal concentrations, the metals are bound in a silicate-iron matrix with characteristics of low metal leachability. The potential for metal migration from the fumed slag is low. In response to EPA's July 6, 2006 comments, Asarco provided the rationale for using fumed slag for backfilling purposes, including study results derived from the RCRA Consent Decree investigations. The slag-related investigative results contained in the Current Condition Release Assessment (CC/RA, January 1999) and qualitative analyses of fumed slag (May 2001) are attached in Appendix B. In April 2005, Department representatives collected fumed slag samples from the East Helena Plant to assess the potential environmental impacts from its use as an iron substitute within the cement manufacturing industry. A copy of the Department's April 2005 fumed slag sampling event results is attached in Appendix B. A July 2006 Department Environmental Impact Statement (EIS) contains additional slag related information.

Most, but not all of the footings or similar structures encountered during the implementation of the Work Plan will be brought to grade. Most of the concrete, asphalt slabs, and some interior wall and/or footings will remain in place. The presence of above ground concrete, asphalt, walls, or footings will not compromise nor impair the ability to achieve proper drainage. It is anticipated that structures greater than three feet in height will remain following the 2008 cleaning and demolition phase of the project. The areas adjacent to these elevated structures will be contoured with fumed slag. This practice will minimize abrupt edges, facilitate the ability to place the interim cap, and reduce the potential for future liner damage.

Regardless of these efforts, the integrity of the cap may be affected by excessive wind or other condition beyond our control. The placement of additional sandbags and tethered vehicle tires over problematic cap areas will be employed to address liner displacement issues. On-going maintenance and repair of the interim cap will be employed (Section 4.5).

4.3 Location of Interim Caps

Once the required backfilling has occurred, certain areas will be ~~covered (final cover system) or~~ capped to control drainage and potential infiltration from precipitation and run-on within the newly exposed footprints. The described capping is considered a precautionary, interim measure. The capping techniques, procedures, and materials are designed to control drainage, potential infiltration, and run-on until the final cover system is constructed. Although the capping program is interim, it is

possible that many of the features such as placement of the fill material and interim caps will remain in place even after a final remedy is implemented. Sheet number 13 of the attached URS/CWC 2008 Cleaning and Demolition Work Plan illustrates the areas in which interim capping will be placed following the 2008 cleaning and demolition.

4.4 Interim Cap Techniques, Procedures and Materials

~~In areas where the final cover system is not immediately constructed,~~ interim caps will be constructed within certain exposed footprints in the demolition areas. The interim cap details and specifications are illustrated within the attached URS/CWC 2008 Cleaning and Demolition Work Plan, Sheet number 14. In general, from the top down, the interim cap will consist of the following:

- Sand bags to hold down the interim cover during windy periods;
- A 24-mil reinforced polyethylene (RPE) with the PRE seams overlapped 3 inches and sewn;
- A minimum 10 ounce non-woven geotextile;
- A prepared sub-grade consisting of fumed slag fill for grading purposes; and
- Existing soils, concrete slabs and/or concrete foundations.

4.5 Maintenance of Interim Cap

4.5.1 Site Inspection

Periodic inspections of the interim cap will be conducted to ensure that the interim cap systems are performing adequately and to identify problems and provide proper maintenance of interim cap systems. The inspection program will involve three types of inspections: (1) informal inspections, (2) periodic technical inspections, and (3) special inspections after extreme events.

The informal inspection is actually a continuing effort by on-site personnel, performed in the course of their normal duties. Periodic technical inspections and inspections after extreme events will be performed by onsite Asarco staff (or other technical representatives) familiar with the design and construction of the capping systems. The periodic technical inspection will be performed monthly to document the condition of the cap components. Special inspections are very similar to periodic technical inspections but are performed only after an extreme event such as a rare rainstorm, tornado, or earthquake.

The inspection of the interim cap system will typically involve walking the entire site in a systematic fashion that ensures a comprehensive review. If any problem or deficiency is found, the inspector should record the location on a field sketch. A complete description of the affected area, including all pertinent data (i.e., size of the area and other descriptive remarks such as exposed synthetic materials) should be recorded on the appropriate reporting forms. An accurate and detailed description of observed conditions will enable a meaningful comparison of conditions observed at different times.

Photographs may be helpful in documenting problems. Provisions should be made to keep a photographic log of problems, repairs, and general site conditions. This log will provide valuable information when evaluating the performance of the interim cap system and when planning repair strategies.

It is important to have a record of site conditions at various stages after capping. Good documentation will provide valuable information to help maintenance and repair planning. Inspection checklists to assist in the inspection and documentation procedures should be developed and modified as needed throughout the interim capping period. The checklist will (at a minimum) contain items to evaluate such as membrane condition, sand bag condition, liner seams, liner/concrete attachments and site drainage. A copy of an example inspection form is attached in Appendix C.

4.5.2 Site Security

The interim cap will be contained within the fenced Asarco facility and will be kept secured so that people or animals do not disturb the interim cap. Site access by ongoing plant or demolition operations will be limited through the use of barricades, barrier tape, or temporary fencing. Plant personnel will advise contractors conducting site activities of access limits within or near capped areas.

4.5.3 Site Maintenance

As shown in Table 4-1, there are four different types of maintenance tasks listed by priority rather than by frequency. Table 4-1 is provided as a guide to prioritize the different types of maintenance activities in proper perspective. The different types of maintenance are also discussed in the following subsections.

TABLE 4-1. PRIORITY OF MAINTENANCE TASKS

Priority	Type of Maintenance	Description and Example
1	Emergency	A situation requiring immediate attention (for example, fire or flood).
2	Preventative	Scheduled inspection and minor repairs carried out during inspection (for example, cleaning of membrane liner).
3	Corrective	Corrective maintenance required as a direct result of scheduled inspection (for example, repair of torn membrane liner).
4	Housekeeping	Routine housekeeping of buildings and grounds (for example, disposal of debris and general housekeeping).

1. Emergency maintenance - Emergencies are situations arising unexpectedly that require urgent attention. Often, immediate response must be provided to avert potential serious damage. Provisions for emergency repair/damage control activities must therefore be in-place prior to the occurrence. Toward this end, an Emergency Contacts list will be prepared and kept current, and include local emergency response organizations, assigned maintenance personnel, and agency and owner representatives. Table 4-2 provides a partial list of emergency contacts.
2. Preventative maintenance - Preventative maintenance will be performed to extend the life of equipment and structures. With the exception of routine surveillance and inspections, preventative maintenance tasks should be scheduled in accordance with the recommendations of the material and

equipment manufacturers. Scheduled inspection and maintenance of all site facilities will help ensure that potential problems are discovered and corrected before they become serious, as well as providing for the performance of periodically required upkeep. During routine inspections, the Asarco personnel should be alert for any abnormal conditions, which could indicate potential problems.

3. Corrective maintenance - Corrective maintenance consists of repair and other non-routine maintenance. Asarco personnel must always be ready to handle these tasks as the need arises. Corrective maintenance procedures should follow the equipment or material manufacturer's recommendations. In planning for the corrective maintenance, arrange for the assistance of an engineer or manufacturer's representative, if necessary.
4. Housekeeping - Maintaining well-kept facilities indicates pride on the part of the Asarco personnel, and provides for good and efficient operations. Well-kept property cultivates good neighbor relations with adjacent property owners. Housekeeping tasks may include collecting/disposing of litter or debris and maintaining access barriers.

TABLE 4-2. EMERGENCY NOTIFICATION CONTACTS AND PHONE NUMBERS

General Emergency Numbers	
Fire Department	911
Ambulance	911
Police	911
Corporate Resources	
ASARCO LLC	
Blaine Cox (East Helena Smelter)	(406) 227-4098
Jon Nickel (East Helena Smelter)	(406) 227-4529
Other Resources	
U.S. EPA (24-hour emergency)	(206) 553-1263
Superfund/RCRA Hotline	(800) 424-9346
Hydrometrics, Inc.	(406) 443-4150

4.6 Departmental Inspections and Confirmation

Asarco will notify the Department within five (5) working days after removal of the material and demolition a specific process unit or areas has been completed. The purpose of this notification is to request that the Department, through its oversight authority, inspect and confirm that the cleaning activity has been performed in accordance with the Work Plan.

These notifications and inspections will allow the Department to document that Asarco has fulfilled all the conditions of the 2007 Order, of which the 2008 Cleaning and Demolition Project Work Plan is a part. The Comprehensive List of Process Units and Other Areas of Interest will be regularly updated after the Department inspects the process units or locations.

5.0 REPORTING

5.1 Quarterly Reporting

Asarco intends to begin the work outlined in this Work Plan on or before June 11, 2008. ~~The schedule to implementing this Work Plan is dependent upon EPA approval of Asarco's Cover System Design Report and Demolition Foot Print Exposed Areas Soil Sampling, Excavation, and Confirmatory Sampling Work Plan and Blast Furnace and Monier Flue Cleaning, Demolition, and Soil Sampling Work Plan.~~ Within 30 days after each calendar quarter (no later than July 31, 2008, October 31, 2008, and, if necessary, January 31, 2009), Asarco will submit quarterly reports that contain the following information:

- a. A description of the portion of the Work Plan completed;
- b. Summaries of all deviations from the approved Work Plan during the reporting period;
- c. Summaries of all problems or potential problems encountered during the reporting period;
- d. Projected work for the next reporting period;
- e. Documentation of all shipments of recyclable material and hazardous waste off-site including shipping papers such as manifests (if required); and
- f. Description of each shipment of reclaimed or recycled material made during the preceding quarter indicating how the material is managed, handled, or treated for recovery or recycling that demonstrates that it has value. The information to be submitted to the Department in making a successful stewardship demonstration is: (1) acceptance criteria required by the receiving facility (expressed as a minimum threshold of recoverable metals and maximum allowable toxic metals), (2) a demonstration that the receiving facility is in compliance with all applicable environmental requirements, (3) a copy of the contractual agreement between Asarco, its broker and the receiving facility, (4) the name of the state or provincial regulatory contact and facility contact.

Quarterly reports will not be required after submittal of the 2008 Work Plan Completion Report.

5.2 Annual Reporting

Within thirty (30) days, but, no later than January 31, 2009, after Asarco concludes that it has fully implemented the materials removal outlined in the 2008 Cleaning and Demolition Work Plan, Asarco shall submit a 2008 Work Plan Completion Report to the Department. The contents of the Work Plan Completion Report will include:

- a. A description of the cleaning efforts conducted;
- b. If applicable, documentation of all shipments of recyclable materials and/or hazardous wastes;
- c. Summaries of all problems or potential problems encountered during the reporting period; and
- d. Certification that the Work Plan has been fully implemented.

6.0 REFERENCES

~~ASARCO LLC, 2008. ASARCO East Helena Smelter 2008 Interim Measures Work Plan Addendum. Demolition Foot Print Exposed Areas Soil Sampling, Excavation, and Confirmatory Sampling Work Plan and Blast Furnace Flue and Monier Flue Cleaning, Demolition, and Soil Sampling Work Plan, February 2008.~~

ASARCO LLC, 2008. ASARCO East Helena Smelter 2008 Interim Measures Work Plan Addendum. Blast Furnace Flue and Monier Flue Cleaning and Demolition and Demolition Foot Print Exposed Areas Soil Sampling, Revised May 2008.

Hydrometrics, Inc., 1999. Interim Measures Work Plan, East Helena Facility, April 1999, Revised July 1999. Includes Volume II, Corrective Action Management Unit Design Report.

Hydrometrics, Inc., 2000. RCRA Facility Investigation Work Plan, East Helena Facility, March 2000.

~~Hydrometrics, Inc., 2008. ASARCO East Helena Smelter Cover System Design, February 2008.~~

**2008 CLEANING AND DEMOLITION PROJECT
ASARCO EAST HELENA PLANT
2008 WORK PLAN**

Prepared by:
URS Corporation/Cleveland Wrecking Company
614 East Edna Place
Corvina, CA 91723

March 12, 2008
Final May 29, 2008

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LIST OF ATTACHMENTS

ATTACHMENT A	CONSTRUCTION DOCUMENT DRAWINGS (SEPARATE DOCUMENT SET)
ATTACHMENT B	CONSTRUCTION SCHEDULE
ATTACHMENT C	IRS ENVIRONMENTAL HAZARDOUS MATERIALS ABATEMENT PLAN
ATTACHMENT D	DEMOLITION AREA CAP INFORMATION

2008 CLEANING AND DEMOLITION PROJECT

ASARCO EAST HELENA PLANT

2008 WORK PLAN

1.0 INTRODUCTION

1.1 Purpose of the 2008 Cleaning & Demolition

URS / Cleveland Wrecking Company (URS/CWC) has prepared this Cleaning & Demolition Work Plan, hereafter referred to as the Work Plan, for the purpose of providing a description of asbestos abatement, environmental cleaning, demolition, and waste handling procedures, which URS/CWC will be implementing during on-site activities in the 2008 calendar year. This Work Plan has been prepared in accordance with the Construction Documents for the "2007 Cleaning & Demolition Project and CAMU Phase 2 Cell Project" of the ASARCO East Helena Plant located at 100 Smelter Road in the City of East Helena, Montana. The procedures described in the Work Plan comply with the Construction Documents and all Federal, State, and local governing regulations.

1.2 Site Location and Description

The ASARCO East Helena facility is a former lead smelter located on approximately 141 acres. The facility is surrounded by agricultural property on the west; Prickly Pear Creek and agricultural property on the east; Montana Highway 12 and residential properties to the north; and Prickly Pear Creek and agricultural property to the south. A site vicinity map is shown Sheet 1 and a site plot plan is shown on Sheet 2 of the Construction Document Drawings, which are included as Attachment A.

The abatement, environmental cleaning, and demolition activities at the site have been broken into two areas: Stage 1 and Stage 2. Stage 1 and Stage 2 have been labeled as Phase IV demolition activities. The Phase I, II, III, and Phase IV, Stage 1 structures have been previously abated, cleaned, and demolished in previous years. The Phase IV, Stage 2 structures will be addressed in 2008, with some of the abatement and cleaning activities having already been completed in 2007. The various areas referenced consist of the following structures:

Phase IV, Stage 2

- | | |
|------------------------------|--|
| ○ Blast Furnace Flue | ○ Truck Loading & Spray Dryer Building |
| ○ Acid Plant Cooling Towers | ○ Sand Filters |
| ○ 400' D&L Stack | ○ 200' Acid Stack |
| ○ Acid Plant Contact Section | ○ Monier Flue |
| ○ Blast Furnace Baghouse | ○ 425' Blast Furnace Stack |
| ○ Ore Unloading Bins | ○ Sample Mill |
| ○ Crushing Mill | ○ Auto Shop |
| ○ Pump Tank Building | ○ Main Blower Building |
| ○ Acid Plant Shop | ○ Ringling Dust Building |

On March 29, 2007, EPA requested that Asarco prepare a separate interim measures work plan for the cleaning and demolition of the blast furnace flue and Monier Flue. On February 26, 2008, Asarco submitted to the EPA the 2008 Interim Measures Work Plan Addendum (IMWPA) (Demolition Foot Print Exposed Areas Soils Sampling, Excavation, and Confirmatory Sampling Work Plan and Blast Furnace Flue and Monier Flue Cleaning, Demolition and Sampling Work Plan). On May 8, 2008, Asarco submitted a revised IMWPA to EPA that reflected responses to EPA comments and to technical discussion that took place on May 2, 2008 between Asarco, the Department, and EPA. On May 21 and 22, 2008, Asarco provided EPA with supplemental information to the revised IMWPA. On May 22, 2008, EPA approved the revised IMWPA. The cleaning and demolition of the blast furnace flue and Monier flue will be conducted by URS using the procedures outlined in this Work Plan.

1.3 Pre-Construction Activities

Prior to the initiation of field operations, the following preconstruction tasks will be completed:

- Site-Specific Health and Safety Plan (HSP);
- Detailed Construction Schedule;
- Establishment of storm water and run-off precautionary measures
- Establishment of administrative offices, staging areas; personnel decontamination facilities;
- General construction permitting will be completed prior to on-site activities; and
- A preconstruction meeting will be held with ASARCO personnel and/or appointed representatives.

Site-Specific Health and Safety Plan

As required, a site-specific Health and Safety Plan (HSP) has been developed and approved for this project. The purpose of the plans will be the protection of personnel and the environment on-site, as well as the general public and environment in adjacent properties and neighborhoods. The site-specific Health and Safety Plan will be enforced within site boundaries at all times. Tailgate safety meetings will be held at the beginning of every work shift; during new phases of operation; at the time new personnel are introduced to the site; and when site conditions warrant such meetings. These meetings will identify potential workplace hazards and problems so that appropriate control measures can be implemented. The HSP will establish procedures and address emergencies that may arise during all site activities. Emergency vehicular access, evacuation procedures, and a listing of all contract personnel with phone numbers have been included in the HSP.

Detailed, specific health and safety issues related to the former processing, storage, and material handling areas within the Facility, will be identified by the URS/CWC Health and Safety Officer.

For those employees to be certified to participate in abatement and environmental activities, employee certifications will be kept on file in the project field office. Employee training requirements will meet the requirements as specified in the Construction Documents and as restated below:

Type	Required Environmental Health and Safety Training	General Work Tasks
GROUP A	None	General Work Force -- Off Plant
GROUP B	No 40 Hr OSHA	General Work Force --Off Plant
	Blood Lead Tests	General Work Force -- Off-Plant
	No Physical (<i>There must be a doctor evaluation to wear a respirator</i>)	
	Respirator Fit Test	
	Site Specific Training	(Additional PPE = Respirator, Coveralls, Showers, Lunchroom)
GROUP C	40 Hr – HAZWOPER-OSHA	Load, Haul, Place and Compact Waste Materials and On-Plant Tasks
	Blood Lead Tests	Demolition
	Full Physical	Cleaning
	Respirator Fit Test	Backfill, Grading, and Excavation
	Site Specific Training	(Additional PPE = Respirator, Coveralls, Showers, Lunchroom)
	Asbestos - 8 Hr Worker Awareness OSHA	Asbestos Abatement Workers Only

Following is a more specific outline of the various tasks and the associated training required:

TASK for 2008 Cleaning & Demolition Project	Required Environmental Health and Safety Training
Mobilization and set-up field office and related facilities	Group A
Pre Demolition Tasks (Lock and Tag Utilities, Remove Acid Catalyst, etc.)	Group C
Cleaning	Group C
Demolition	Group C
Post Demolition Tasks (Fence, Barricade walkways, Seal flues and ducts, etc.)	Group C
Backfill, Grade, and Excavation	Group C
Extend and Survey Monitoring Wells	Group C
Prepare As-Built Survey	Group C
Final Cleaning	Group C

Detailed Construction Schedule

A detailed construction schedule has been included in (Attachment B). This schedule includes durations and milestones for all activities anticipated during asbestos abatement; cleaning; structure demolition and salvage; and material handling and transfer. The schedule is in sufficient detail to define the path of the project.

Storm Water Prevention Pollution Plan

The site's existing Storm Water Prevention Plan (SWPPP) will be utilized for this scope of work. This Plan describes storm water prevention procedures to be utilized during the work. In general, storm water runoff is routed to the internal plant water handling system. Storm water and run-off will be directed to the plant water system for treatment via the High Density Sludge (HDS) plant, to be operated by ASARCO personnel.

In areas where cleaning and/or demolition could potentially create dust laden runoff, URS/CWC will protect the drains as necessary to prevent contaminants from entering the system. This protection will consist of a combination of sand bags, hay bales, and filter fabric strategically placed to remove the solids while allowing the storm water and/or run-off to continue to the existing storm water containment and treatment system prior to discharge. URS/CWC will ensure storm water and/or run-off is free of grease and oils by utilizing methods to prevent and promptly clean any oil and grease spills.

Site Security

URS/CWC understands that the facility is currently surrounded by security fencing or structures, which will prevent unauthorized personnel access to the site. URS/CWC will follow sign in procedures and check in at the main facility gate or another gate/entrance specified. URS/CWC will control access to work areas during operating hours through the monitoring of a single ingress/egress location with mandatory sign-in procedures for all personnel. During off-hours, sensitive work areas will be cordoned off with temporary barricades, delineators and caution tape.

During the course of the 2008 cleaning and demolition, structures will be removed that are currently acting as a site "fence." URS/CWC will coordinate activities with its designated fencing subcontractor such that as structures are being demolished, new chain link fence is installed to close the opening created by demolition. In the event that the new permanent fence cannot be completed across the new opening, temporary fence panels on stands will be installed to close the opening. A temporary, delineated barricade will be put in place. The use of A-frame barricades, delineators, and caution tape will further be used to define the facility at these points.

Temporary Facilities / Construction Control

URS/CWC will establish temporary facilities and construction control procedures to be implemented at the project site. ASARCO will provide and URS/CWC will maintain suitable temporary office space to coordinate field construction activities. Adequate sanitary facilities, fences, barricades and scaffolding will be provided as needed. Storage for tools, light equipment and appropriate signs will also be established, as needed, for this project. Temporary services will be coordinated with ASARCO representatives for existing and future construction activities, demolition activities, and site traffic. Safety will be managed, including the monitoring of vehicular and pedestrian traffic and public safety, as needed.

Delineation of Work Zones

Work zones will be established during pre-mobilization planning. In general, this will include the following:

- Lead/Decon exclusion areas;
- Asbestos removal areas;
- Equipment staging areas;

- Personnel decontamination areas;
- Storage areas;
- Demolition and salvage areas;
- Loading areas/staging of off-site waste; and
- Field office/support areas.

General Construction Permitting

The following lists the applicable permits and/or notification that may be obtained or that may need to be notified by URS/CWC and/or ASARCO prior to the initiation of any fieldwork.

State of Montana

- Montana Department of Environmental Quality (MDEQ).
- Division of Occupational Safety and Health (OSHA) Department of Industrial Relations - Notification of Asbestos Abatement.
- Division of Occupational Safety and Health (OSHA) Department of Industrial Relations - Notification of Demolition Activity S-691.

Preconstruction Meeting

Following the completion of the tasks outlined above, a preconstruction meeting will be held at the facility or other location designated by ASARCO. The purpose of the meeting will be to discuss the Scope of Work and the roles of the parties involved. Details regarding the date that fieldwork will be initiated, site access requirements, hours of operation, deliverables required by ASARCO, and locations of construction equipment, staging and cleaning areas would be discussed. Participants in the meeting will include the ASARCO project team, the URS/CWC project team, and the Montana Department of Environmental Quality.

1.4 Mobilization

Following the preconstruction meeting, work areas will be secured and a central field office will be established. Equipment and materials necessary to complete the project will be moved to the facility and staged at predetermined locations within the facility. In addition to the field office, the following work areas will be established:

- Establishment of on-site electric and water service (as needed);
- Personnel decontamination areas;
- Temporary conveyance systems;
- Equipment lay down areas; and
- Demolition salvage staging and loading areas.

The work areas listed above, as well as, other tasks that will be conducted during the mobilization phase of this project are described in the following sections.

1.5 Personnel Decontamination Areas

Personnel decontamination areas will be established for each exclusion zone and work activities that may expose workers to unique safety hazards and/or hazardous levels of chemicals and waste materials. These requirements will be used to determine appropriate personnel protective equipment (PPE) that will be used in each of the separate plant areas during each phase of work. Required PPE, decontamination procedures and personnel decontamination equipment have been identified in the Health & Safety Plan.

1.6 Temporary Conveyance Systems For Surface Water

Existing collection trenches and sumps will be used to collect surface water during decon activities. The locations of these trenches and sumps will be confirmed and identified by the URS/CWC, utilizing existing project utility plans, during the pre-mobilization activities as well as throughout the completion of on-site work activities. During collection of surface water, this material will run through ASARCO's current WWT Waste Water Treatment facility (being run and operated by ASARCO). ASARCO will handle materials once it hits the WWT. ASARCO will be responsible for any required waste (water) treatment and disposal permits required on the project.

The conveyance systems used to collect project decon water will include, but not limited to those features generally located in the vicinity of Asarco's waste water treatment and the on-site car wash facilities. The waste water treatment plant at the East Helena Plant treats facility water and discharges the treated water under Asarco's MPDES permit. The sludges that collect in sumps, defined as waste water treatment units (40 CFR 260.10), are exempt from RCRA permitting. When generated by removal from the sumps, the sludges will be managed appropriately and, if hazardous, will be managed in accordance with applicable rules and regulations.

Asarco's current MPDES permit, March 2001 MPDES permit renewal application, and April 2007 update to its March 2001 MPDES permit renewal application (Department action pending) list Upper Lake and City of East Helena water as operations contributing flow to Asarco's waste water treatment plant effluent, both of which may be used for decon of project equipment. The MPDES permit allowed for the treatment of decon equipment wash water during plant operations. The MPDES permit provides for this same treatment during the cleaning and demolition activities.

1.7 Demolition Salvage Staging and Loading Areas

Several demolition salvage staging and loading areas will be established for cleaned material and equipment. These areas will be easily accessible to expedite loading and transport activities. Surface cover in these areas will be durable enough to withstand the storage and movement of heavy scrap material without breaking apart and creating difficulties when loading the material or impacting the areas.

1.8 Demobilization and Contract Close-Out

Following the completion of all field activities, the site will be cleared of temporary construction facilities as well as the disconnection and removal of temporary power sources. All equipment brought to the jobsite throughout the project will also be removed. A site walk will be conducted with the ASARCO Project Management Team at the completion of demobilization. This site walk will be used to receive closeout of construction activities or identify "punch list items" to be addressed. Following the completion of field

activities, URS/CWC will submit to ASARCO any documentation that had not been forwarded to ASARCO on a weekly basis.

2.0 HAZARDOUS MATERIALS REMOVAL AND HANDLING PROCEDURES

This section describes the procedures that URS/CWC will employ to remove and/or decontaminate those areas that have been impacted by hazardous substances (heavy metal laden dust, acids, etc.) and/or containing Universal Waste items. Universal waste (UW) includes the removal and packaging of Fluorescent Light Tubes, HID lamps, PCB and non-PCB ballasts, and mercury containing equipment from the 2008 Cleaning and Demolition Project. URS/CWC anticipates using the Direct Smelt Building or Shop Storage Building for the storage of containerized hazardous waste and Universal Wastes. If encountered during the Project, the storage of PCB and non-PCB ballasts and mercury containing equipment will occur at the same locations. Asarco will be responsible for inspection and proper management of these wastes.

As addressed in the ASARCO Project Specifications, URS/CWC will provide the personnel and equipment to perform the necessary waste removals prior to demolition. ASARCO has required that hazardous materials are to be addressed and that the facility will be free of appreciable hazardous materials prior to the initiation of any demolition activities.

2.1 Lead and Heavy Metal Dust and Debris Removal

Located within the ASARCO facility are areas that have been impacted by lead and other heavy metal dusts and debris, which were utilized and/or were a by-product in the manufacturing of lead bullion. The intent of the interior cleaning is to reduce the potential for fugitive dust emissions during demolition. URS/CWC will take precautions, as addressed in the Site-Specific Health & Safety Plan, when working with and handling heavy metal contaminated materials. The surface areas to be handled due to heavy metal dust and debris contamination will include those areas delineated on Sheet 3 of the Construction Drawings (Attachment A). In general, URS/CWC's method for addressing heavy metal dust/debris removal will consist of:

- Work Area preparation;
- Initial Dry Removal of Bulk Solids; and
- Moistening of Building Interiors for Dust Control.

Work area preparation will consist of delineating a work area that can be both easily contained and is considered a cohesive area unit with like contamination (i.e., Baghouse, Blast Furnace Flue, Monier Flue, etc.). The cleaning and demolition of the blast furnace flue and monier flue will be governed by the EPA approved 2008 Interim Measures Work Plan Addendum (May 2008). Once the work area has been defined, URS/CWC will begin the removal of bulk solids. The goal of this task will be to remove the gross, dry accumulation of contamination (lead, lead dust, lead debris, acid residues, etc.) at all accessible areas. This will be performed by personnel utilizing hand tools and a trailer mounted "Hurricane" vacuum system with HEPA filtration. Waste will be loaded via air tight chute into appropriate containers (i.e., double 6-mil mega bags, etc.) and hauled directly to the CAMU. This initial removal of the gross, dry accumulation of solids at ground level will ensure a more effective and more controlled method of demolition and overall dust control.

Upon completion of the gross debris removal at ground level, URS/CWC will initiate the pre-wetting and moistening of the building interiors. After review of the building interiors, URS/CWC has determined that accumulated dust on various horizontal surfaces within the interior presents a potential for airborne dust. The purpose of this operation will be to mitigate airborne dust generation during the above grade demolition operation. This pre-wetting activity will be accomplished through a combination of methods, including water hoses, water trucks, and misting systems. URS/CWC realizes that it is not feasible to remove all heavy metal laden dust from all surfaces and confined areas prior to demolition. URS/CWC will focus its efforts on mitigating the generation of airborne dust during the demolition and material handling operations.

URS/CWC will utilize the services of a subcontractor, IRS Environmental, to perform the removal of lead and heavy metal laden dust and debris from the subject structures. IRS Environmental has further procedures for this activity as delineated in their "Hazardous Material Abatement Plan" which is provided in Attachment C.

~~URS/CWC and IRS Environmental have discovered areas within the Blast Furnace and Monier Flues, which do not appear to be structurally sound and present a health and safety hazard for the presence of personnel. Prior to the start of the flue pre-cleaning operation, URS/CWC and IRS Environmental will evaluate the entire flue for these suspect areas and will clearly mark and delineate these areas that are deemed unsafe for working personnel. These delineated areas will not be pre-cleaned as described above. However, they will be handled and addressed during the normal demolition process. URS/CWC will take extra care and precaution during the demolition of these delineated areas. Demolition will proceed in a controlled manner and additional dust control measures will be implemented during this process.~~

2.2 Catalyst Converter Vessel and Acid AST Decontamination

The Converter Vessel and various acid ASTs (if any) will require cleaning to prevent the generation of airborne dust or acid laden mists that could potentially be an eye, skin, and inhalation hazard. URS/CWC will initiate the decontamination process by removing all solid contents from the tanks and staging for eventual disposal in the CAMU. Catalyst from the Converter vessel will be removed via vacuum truck with personnel entering the vessel utilizing properly planned and coordinated confined space protocol. Catalyst removed during this task will be containerized and hauled directly to the CAMU.

Upon removal of contents from the other acid ASTs (if any), cleaning of the tanks will be conducted by utilizing a high pressure water source to triple-rinse the interior of the tanks. The free liquids and pumpable sludge will be removed from the tanks through a 2-inch or 3-inch vacuum hose into a DOT licensed vacuum truck or 55-gallon drums. Once the triple-rinsing of the tank is complete, rinsates generated from the cleaning process will also be placed into appropriate containers and staged accordingly for disposal by ASARCO. As a precautionary measure, URS/CWC will have available a small quantity of lime rock that can be utilized in the event of an acid release/spill. This lime rock will be used to neutralize any release and will facilitate the overall clean-up of such an event. Additionally, URS/CWC may utilize this lime rock as a means of neutralizing the pH of materials generated during the cleaning and washing process. This procedure could allow for placement of these liquids into the on-site waste water treatment system.

Waste water removed from the flushing of previously cleaned acid storage tanks will be directed into Asarco's waste water treatment plant. Asarco's MPDES permit allowed for the treatment of cleaning and washing of acid tanks during plant operations. The MPDES permit provides for this same treatment during the cleaning and demolition activities. Testing of pH and neutralization is not necessary since Asarco's waste water treatment plant is designed to treat low pH liquids. Asarco will manage wastes generated from the acid plant in accordance with those procedures currently described in Section 5 (Demolition Activities) and Section 6 (Dust Control Plan) of the Work Plan.

Upon the completion of the tank cleaning, the tank will be released for general demolition with the resulting metal being staged for salvage.

2.3 Stack Cleaning

URS performed the interior wash down of the three (3) concrete/brick chimney stacks (425' Blast Furnace Stack, 400' D&L Stack, and the 200' Acid Stack) in 2007. The work procedures can be found in the 2007 Cleaning and Demolition Work Plan. The methods in which the stack washing materials were managed are discussed in Asarco's 2007 quarterly and annual completion reports.

2.4 Removal of Oils from Site Equipment (If Discovered)

Located within the facility, miscellaneous equipment is present that utilizes hydraulic oil or other oils in their operating capacity. Upon assessing these units, personnel will clear the area of all obstructions. All electrical service will have been disconnected prior to this time. URS/CWC will locate and coordinate the equipment to remove the oils stored in the reservoir tank or unit itself. Once the reservoir is opened, personnel may utilize mechanical (metal or plastic) hand pumps or vacuum devices to facilitate oil removal. Hand pumps, if used, will pump the oil directly into 55-gallon drums. Drums will be located adjacent to the work area during oil transfer to reduce spillage. Once filled, the drum will be sealed and labeled with the type of substance and location. Absorbent will be available on-site during oil removal and transfer as a contingency in case of spillage. Used absorbent will be placed in a drum labeled "Oily Absorbent" or incorporated into an existing oily absorbent stream generated from general facility decontamination. URS/CWC will promptly clean up oil and grease spills to prevent contamination of storm water and/or run-off. URS/CWC anticipates using the Direct Smelt Building or Shop Storage Building for the storage of containerized hydraulic oil or other oils. Asarco will be responsible for inspection, labeling, and management of these materials.

2.5 Universal Wastes (If Discovered)

As observed throughout the facility, various Universal Waste (UW) items which although are not considered a hazardous waste, will require special handling and recycling or disposal by EPA and State regulations at a permitted and licensed treatment, storage, disposal facility. Hazardous waste and UW components may include the following items:

- Fluorescent Light Tubes;
- High Intensity Discharge (HID) Lamps;
- Light Ballast containing PCBs;
- Mercury Containing Equipment; and
- Refrigerants (CFCs).

Removal of Fluorescent Light Tubes and HID Bulbs

URS/CWC will ensure that all electrical systems have been deenergized, thus personnel can proceed with the removal of the fluorescent lights and HID bulbs without electrical issues. Once established, the plastic cover of the light fixture, if present, will be removed and placed on the floor, at which time the exposed fluorescent light tubes will be removed by hand and placed in a rubber/plastic container for temporary storage. URS/CWC will utilize rolling scaffolding, man lifts or ladders to support workers on single story floors. For ceilings that are of greater height, a motorized lift will be utilized to assist in retrieving light tubes and other lighting components.

The High Intensity Discharge (HID) bulbs will be removed in the same manner previously outlined for the fluorescent tubes. Removal of the HID bulbs will require the use of motorized boom-lifts in order for personnel to achieve accessing the lamp fixture at much greater heights. HID bulbs will be unscrewed from the lamp housing and placed in cardboard boxes or drums supplied by the receiving facility. The containers will be filled with the bulbs and as they become available, personnel will seal the box and place a label on the box indicating material type and quantity. All storage containers will be relocated to a designated temporary storage area. The fluorescent light bulbs and HID bulbs will be shipped off-site for disposal.

Handling of Non-PCB and PCB Ballasts

After removal of fluorescent light tubes, the protective ballast cover will be removed to access the light ballast for inspection. The inspection will be completed with the fixture in place. Inspection of the light ballast will include careful review of the ballast label to determine if the ballast contains PCBs. If the ballast is not marked "No PCBs" or the label is removed or unreadable, it shall be assumed that the ballast contains PCBs. If the ballast does not contain PCBs, as determined by this definitive visual inspection, the non-PCB ballast will be left in place for demolition.

During removal of the ballast, if any portion of the light fixture is impacted with PCB oil due to leaking, the portion of the impacted fixture may be decontaminated by scraping the oil from the ballast cover. Any generated residue or wiping clothes will be considered PCB contaminated and incorporated into the drummed ballast waste stream. Once the PCB ballasts have been removed and are staged in a central location, the PCB containing ballasts will be placed in 55-gallon drums for eventual off-site disposal.

Mercury Containing Equipment

Each identified piece of mercury containing equipment designated for removal will be located, isolated, and cleared of all obstructions. Disconnection of the isolated items will proceed utilizing all safety and standard removal procedures for the specific item. Procedures will include lockout/tagout of electrical feed to building or area, cutting electrical lines to the unit, and removing isolated item. As removal of like items proceed, thermostats, thermometers, ignitron tubes, barometers, etc. will be removed, the wires clipped and placed in a 5-gallon spill proof plastic containers containing several inches of absorbent media. This media will cushion the ampules during facility transportation as well as absorb any free-flowing mercury if ampules were to break or leak. In case of a spill or release, URS/CWC personnel involved in the removal and handling of mercury containing equipment will be given a Mercury Spill Response Kit. The mercury containing devices will be shipped off-site for disposal.

Refrigerants

The specific item containing Chlorofluorocarbons (CFC) (i.e., air conditioning units and chillers) will be located and accessed for recovery. The CFC containing equipment will be disconnected utilizing the proper safety and standard removal procedures and evacuated. Air conditioners and chillers will be disconnected from their power sources. URS/CWC will provide certified refrigerant recovery subcontractor to facilitate evacuation and recovery of the refrigerant. URS/CWC personnel will document on an internal waste removal log, the quantity in pounds of CFCs recovered from the various units. Once the unit is cleared, the unit will be tagged with an agreed upon colored tag indicating "CFCs Removed." The methods in which the majority of refrigerants (CFCs) located in the cleaning and demolition areas were managed are discussed in Asarco's 2007 quarterly and annual completion reports.

3.0 ASBESTOS ABATEMENT METHODS

Materials located within the facility considered for asbestos abatement include, but are not limited to: rope, tile, mastics, transite panels, window putty, roofing materials, metal panels, etc. URS/CWC will utilize the services of a subcontractor, IRS Environmental, to perform the asbestos abatement activities. Their work procedures and methods are described in their "Hazardous Materials Abatement Plan" which is included in Attachment C.

URS/CWC and its subcontractor, IRS Environmental, performed a majority of the Phase IV, Stage 1 and Stage 2 asbestos abatement activities in 2007. The remaining asbestos abatement activities to be performed in 2008 consist of the removal of asbestos containing siding/panels in the Acid Plant area. Due to the elevated location of and numerous pipe penetrations through these panels, URS/CWC and IRS Environmental will work cooperatively to remove these panels during the course of Acid Plant demolition activities. Special care and precaution will be taken during the demolition process to minimize damage to the panels.

If, during the course of 2008 demolition activities, additional, previously unknown asbestos is discovered, URS/CWC and IRS Environmental will utilize the methods and procedures as described in the "Hazardous Materials Abatement Plan."

4.0 UTILITY DISCONNECTS

Prior to the initiation of any fieldwork, existing plant utilities and process piping systems will be identified. These procedures will be conducted with URS/CWC survey personnel and the assistance of the designated ASARCO operations person. It will be necessary to lockout most of the utilities and process piping in all areas of the plant prior to cleaning and dismantling. URS/CWC management will determine what systems need to remain active to facilitate the removal of residual products, and cleaning and demolition activities in each of the plant areas.

A detailed description of utility systems lockout protocol is included in the Health and Safety Plan. Lockout procedures will generally include the following objectives:

- Lock-out (close, disconnect, plug, and/or blank) and tagging valves;
- Lock-out and tagging, or disconnection of electrical systems;

- Capping/plugging of storm water lines as necessary to complete work; and
- Documentation of utility caps on Owner supplied facility utility maps.

5.0 DEMOLITION ACTIVITIES

5.1 General

The demolition activities at the site require extensive experience to coordinate services and minimize migration of dust and debris. The demolition of a building can be achieved in a variety of manners depending on the type of structure, reasons for demolition, the proximity to the surrounding structures, safety, and the requirements for salvage or resale. URS/CWC will use a sequence of demolition approach for the major building structure and will compile information from the onsite as-built drawings, and onsite inspections of the buildings to allow our operations and staff to formulate a sequence of demolition of each building to ensure safe working conditions. Typically, this approach involves the dismemberment of the building using breakers, shears, pulverizers, processors or cutting equipment. This technique is generally used on steel and concrete/masonry buildings (spans up to 150 feet) where large shears can cut various members and place the members or drag the members into a staging area where grapple equipment can stack and pile for salvage or further handling.

Our approach focuses on the removal of the bay-to-bay supports (columns and beams), and the flooring and roofing structures in a sequential, controlled manner. This removal approach is excellent when the project requires the salvage of building materials and when dust control requirements warrant a controlled demolition process. Salvage activities including loading, separation, etc. will continue concurrently with the demolition process.

As with every demolition project, the principle considerations are stability of the building structure and the safety of the working personnel and related areas within the collapse envelope of the structures. The following section outlines URS/CWC procedures:

5.2 Isolation Activities Before Demolition Of Structures

Before and/or concurrent with the abatement and removal of regulated wastes, URS/CWC will conduct isolation activities to create a physical separation of the 2008 cleaning and demolition areas from the surrounding structures, piping, items, that are to remain. This will be conducted in a variety of methods employing both excavators equipped with shear attachments and laborers with hand tools and cutting equipment. Prior to initiation of the isolation work, URS/CWC will perform an investigative site walk with ASARCO personnel to re-mark and re-designate the lines of separation between the demolition areas and surrounding areas to remain.

Piping, conduits, and structures that are accessible to an excavator will be selectively sheared at the marked isolation location. The member to be isolated will be cut in such a manner that it will fall away from areas to remain and be protected in place. As members are cut and removed, they will be placed behind the excavator for handling and staging accordingly. Certain piping, conduits, and structures that are not accessible to an excavator that require isolation will be removed by hand using man lifts to position workers with hand tools to cut members free using hand saws or torch cutting equipment. Components will

be secured to a crane, forklift or bucket loader and lowered to the ground, or may be allowed to sag to the ground as supports are disconnected.

Upon completion of the isolation task, a physical separation will exist that will ensure areas to remain are protected in place and that the demolition activities can progress unimpeded. Inspection of operations will be conducted by both the Site Superintendent to ensure that exclusion zones are established and that safe working conditions exist at all times. Regular daily safety meetings will be conducted by each foreman to discuss methods, exclusion zones and safety practices. Materials are to be removed from the working area on a daily basis to provide safe working conditions for the men and equipment.

5.3 Demolition of Buildings and Structures

Prior to the above grade structural demolition, the following items will be confirmed complete:

- Decontamination/Cleaning;
- Universal Waste removal; and
- Required interior and exterior asbestos abatement operations.

Steel Structure Demolition

The approach to the building demolition is to use excavators (track-mounted) equipped with specialty attachments (such as shears, breakers and grapples) to structurally remove, bay by bay, the various structural members. The sequence approach is as follows:

- Each structure will be demolished using excavators with specialized attachments. Each truss frame structure between bays will be lowered and/or dropped to the ground by separating the portions of the tension members on the bottom chord to cause the truss to sag in between two bays.
- The excavator will then separate the remaining tension members of the truss to allow one end of the main truss to become separated from the supporting column.
- The other end (still connected) of the truss will be disconnected. The remaining roof transverse trusses, connecting main truss to main truss shall be removed to allow placement of main truss behind the equipment for salvage. The remaining portion of the roof attached to the next bay section will be cut allowing for removal. The excavator will then drag the roof section behind for stockpiling and separation. This process is repeated for each of the numerous bays within each of the above referenced buildings.
- Steel columns will be cut with a shear at the base, and allowed to fall to the ground.

All materials will be staged behind the working areas of the primary excavators, where they will be prepared by additional shears before they are loaded into dump trucks and hauled to the steel staging area just to the north of the Coverall Buildings. Materials will be continuously removed to allow other operations to proceed.

Concrete/Masonry Structure Demolition (~~Baghouse Bldg., Baghouse Flue, Monier Flue, etc.~~)

A 100,000 lb excavator (or larger), equipped with a breaker, and a track loader will be utilized for the complete above grade concrete demolition operations of the various concrete and masonry structures. The exterior walls are constructed of a either a concrete block material or a brick material. Starting at one

end, URS/CWC will commence breaking from the top of the wall down from column to column. Once complete with the exterior wall at the end, URS/CWC will commence the removal of the concrete upper floor slabs within the same constraints as the wall. This process is limited to the first interior column line. Demolition of the elevated floor slab and walls will be completed in a top down approach for each individual column line. URS/CWC will break the closest interior columns under the roofs and floor, allowing the individual floor to sag. URS/CWC will work into the building, breaking the sagged slabs and allowing the debris to fall to the ground. As floor slabs are removed and area is created in front of the equipment, URS/CWC will continue to break interior columns from the top down.

Once complete for that column line, URS will repeat the same procedure for the remaining column lines. Utilizing a track loader, the broken concrete debris will be removed and hauled directly to the CAMU.

Stack Demolition

Upon completion of the stack cleaning as described above, URS/CWC, and its subcontractor (Dykon), will commence with the demolition/felling of the stacks by explosives. Prior to Dykon arrival, URS/CWC will remove all flues and equipment servicing the stacks. This will be done with the use of heavy equipment and personnel isolating the stacks as described above.

Upon Dykons arrival, ASARCO, URS/CWC, and Dykon will determine the best area for each individual stack to land. This will be open ground area, mid-point between the areas remaining. A transit will be placed at this point to mark the centerline of the stack. From this point, Dykon will measure $\frac{1}{4}$ of the circumference in both directions to determine the exact centerline of rotation. Dykon will "layout" the stack according to an engineering analysis and drawing. A transit will be used so that a precision line of fall can be determined. To ensure that enough material will be removed on the fall side, three (3) rows of holes will be drilled on 18" to 22" centers. Past the line of rotation, a triangle area will be outlined by line drilling a series of holes. This area will be removed to insure the stack hinges on a single line of holes that will be drilled around the back of the stack. There will also be a window removed on the fall side of the stack creating two columns that the URS/CWC will drill with three lines of $1\frac{3}{4}$ " holes each.

It is also necessary to relieve the tension on the hinge side of the stack once the explosives are detonated. This can be accomplished by two methods. Either URS/CWC will drill an additional line of $1\frac{3}{4}$ " holes circumnavigating the opposite side of the stack, which will be loaded and detonated with the blast, or it is acceptable to chip the concrete away enough to expose the rebar on both interior and exterior mats to torch cut it. In either case, a three-foot area on both sides of the stack will be left untouched to provide lateral stability for the felling of the stack. A test blast will then be conducted on the stack to verify that a sufficient quantity of explosives is being used for the demolition. Several holes in the hinge area will be loaded with various quantities of explosives, covered with steel plates, shot, and reviewed to determine the results. Once the debris and reinforcing steel has been removed, a second test blast will be performed on the opposite hinge and the center hole, adjusting the explosive ratio as necessary. URS/CWC may utilize an excavator with hydraulic breaker to remove the remaining portions of concrete from the other stacks.

A few days prior to the blast, a local explosive supplier contractor will deliver the explosives to the site by a vehicle that meets all the local explosive haulage requirements. The explosives will be guarded onsite for the duration of the production loading. Dykon will then commence with the production loading of the stacks after the test blast. After loading is completed, URS/CWC will provide and place two layers of 10 oz

geotech and two layers chain link fence or sufficient steel around the stack. This will prevent debris and flyrock from escaping the immediate area.

The surrounding structures will be protected as needed, based on their distance from the structure. All windows, doors, or equipment in the immediate vicinity should be protected from both shrapnel and dust invasion, as necessary. A pre-blast survey will be conducted by an independent firm to verify that the surrounding structures aren't affected by the blast. Seismographs will be placed at various locations surrounding the blast sight to verify that blast vibration does not exceed a maximum value. At a 500' radius from the structure the estimated peak particle velocity should be less than 0.25 inches/ sec.

The initiation system will be a non-electric system. This system uses shock tube and detonating cord to transmit the signal to the blasting caps instead of electricity. The non-electric system provides a better safety factor than the electric system of initiation. Premature detonation as a result of lightning and radio interference is negated with this system.

A security area will be established between URS/CWC and the local police department. This plan will indicate safe viewing locations for the media, general public, and personnel involved with the demolition. Prior to the blast, the area around the stack will be cordoned off as determined by all parties concerned. This area will be rechecked while the final wiring is completed and verified for continuity. When all is ready, a series of sirens will be sounded and the blast set off. Following demolition, Dykon's personnel will check the area and an all clear signal will be given before the cleanup process can begin.

Utilizing a track loader, the broken concrete debris will be removed and hauled directly to the CAMU. The Department will be notified within 72 hours prior to stack demolition. The Department will be provided with the plan that indicates the safe viewing locations for the media, general public and personnel involved with the demolition.

5.4 Stockpiling

As steel structure and concrete demolition is progressing, material will be hauled and stockpiled in the designated Material Staging and Processing areas located within the demolition area footprints. At these locations both general demolition debris and salvageable metal materials will be sized to meet the requirements of the final disposition location. Once general demolition debris has been segregated and sized, URS/CWC will load and transport the material directly to the CAMU. With regards to salvageable metals, URS/CWC will size the material to its requirements and stage the materials for eventual loading into railcars and/or trucks for transport to the recycling facility.

5.5 Debris Transportation

URS/CWC understands the critical nature of loading and transporting of waste debris from demolition areas to the CAMU. Therefore, URS/CWC will take a proactive approach to ensure that the transportation of waste debris does not generate dust or spread waste debris outside the limits of the loading area and the final CAMU placement area. For all demolition debris, as further described below, URS/CWC will utilize water trucks and misting systems to keep debris moist during the demolition and loading process. These operations will minimize airborne dust during the loading operation and be the first step in prevention during transportation.

URS/CWC anticipates utilizing 25-35 ton rock trucks, side dump trucks, and/or 10-wheel dump trucks, or a combination thereof, to haul the material to the CAMU. All trucks will be equipped with sealed tail gates that will be closed during times of hauling to ensure that debris is not released outside the limits of the loading and dumping area. In order to further mitigate dust generation during hauling operations, URS will construct a truck moistening station at the exit of the ASARCO site over to the CAMU site. This station will consist of a scaffolding platform on which personnel will mist water on the loaded debris as a final step before it travels outside the property fence line and across the County road. The spray will add a final moisture barrier/binder to the debris for the short distance to the CAMU. Transport vehicles will be limited to a maximum 10 miles per hour while both on-site and during transport. Limiting speeds will prevent dust from become airborne during transport and will prevent the kick-up of dust due to rolling tire action.

Transport of waste on-site will follow prescribed paths, which will be determined during the course of demolition. Due to the changing nature of the site as demolition of structures progress, haul routes will require modification as site conditions dictate. However, once defined, these haul routes will be enforced to create dedicated routes that can be maintained to mitigate dust and debris migration, and prevent any potential spread of contamination. Maintenance of haul routes will be conducted through routine daily inspection to ensure that debris is not being released.

~~Additionally, haul routes will be lightly wet with a water truck on a frequent basis throughout any given day to prevent the generation of dust due to vehicular traffic. The material generated from the cleaning and demolition project must be managed to ensure unacceptable levels of dust are not generated. Asarco's Air Quality Permits requires the use of dust suppression methods, including the use of water, to meet this obligation. The use of water as a dust suppression will be managed to minimize infiltration. The temperatures and relative humidity experienced during the construction season will promote evaporation of the water used for dust suppression rather than infiltration. In accordance with the CAMU Design Analysis Report, street sweepers will be used on plant site and waste transport haul roads. Water dust suppression will augment the use of street sweepers as the overall dust suppression program. URS/CWC will utilize the services of a street sweeper to clean the haul routes of accumulated debris and dust. This debris and dust sweepings will be dumped on-site and handled as demolition debris for eventual placement into the CAMU. The CAMU Design Analysis Report (including the May 22, 2008 addendum) will govern the methods for placing the material within the CAMU cell.~~

5.6 Plug And Abandon Underground Piping

Underground piping exists within the footprint in which cleaning and demolition will take place. The underground piping will be plugged and sealed in place. The plug and abandonment of underground piping are governed by the procedures outlined in the EPA approved Interim Measures Work Plan Addendum (May 2008). ~~The utility locates will be performed by the URS/CWC and compared with the utility drawings and underground utility information provided by Asarco to identify as many underground utilities as possible. The underground utility map provide by Asarco is included in Sheet Numbers 5 and 6. The abandoned underground utilities that will be flow filled is included in Sheet Number 7. The utility piping will be flushed with water and blown out with air. Some utilities/piping may contain some residual material (e.g. plant water, residual pipe sediment, sewage) from previous activities will take necessary precautions in the handling and disposal of any such materials. All existing underground utilities (e.g. piping conduits, catch basins, manholes, Wilson irrigation ditch) will be plugged/capped and abandoned in~~

~~place along their entirety utilizing flow fill or other approved material. The flow fill will be introduced using pressure not to exceed 100 psi. The grouting will continue until a steady flow of grout exits the pipe outlet. The outlet will be sealed then the inlet will be grouted under pressure using a pressure between 50 and 100 psi.~~

5.7 Capping of Demolished Areas

~~In order to address long term environmental issues, Asarco proposes to place a permanent cover system over the East Helena plant site. When combined with a systematic approach of facility cleaning and structural demolition, the cover system will provide permanent site stability and closure.~~

~~On February 13, 2008, Asarco submitted to EPA the Cover System Design Report that contain Asarco's proposal for general design and construction of the cover system, which will be deployed in stages following cleaning and demolition of the East Helena Smelter. It also presents detailed design for construction of a portion of the cover system in 2008. Sheet numbers 13 and 14 illustrate the areas and details in which the 2008 temporary cap will be installed.~~

~~Asarco proposes to proceed with construction of the proposed cover system to the extent practical once the 2008 cleaning and demolition is completed, eliminating the need for placement of a less protective temporary cap in some areas. Sheet numbers 8 and 13 show the area of the site in which Asarco proposes to complete cleaning, demolition, grading, and cover system construction during calendar year 2008. While most of the areas scheduled for cleaning and demolition in 2008 will be addressed in the Cover System Design plan, a portion of the 2008 work including a section of the blast furnace flue and crusher mill building area is scheduled for a interim cap in 2008. The areas in which the interim cap will be placed is shown in Sheet number 13.~~

Asarco intends to backfill and install temporary caps in areas where cleaning and demolition has occurred and where exposed soils are present.

Upon completion of the cleaning and demolition operations in the identified ~~blast furnace and crusher mill building areas~~, URS/CWC will remove all debris and items from the slab that could possibly penetrate the subject geotextile and geomembrane. URS/CWC will utilize the existing on-site fumed slag as fill material over the identified areas. This fumed slag will be placed and rough graded to create the positive drainage required per the Construction Document Drawings. The fumed slag has been used as a grading material at the plant site in the past and possesses good physical characteristics for fill or sub-foundation uses (granular material and compacts wells). Although fumed slag contains elevated total metal concentrations, the metals are bound in a silicate-iron matrix with characteristics of low metal leachability. The potential for metal migration from the fumed slag is low. In response to EPA's July 6, 2006 comments, Asarco provided the rationale for using fumed slag for backfilling purposes, including study results derived from the RCRA Consent Decree investigations. The slag-related investigative results contained in the Current Condition Release Assessment (CC/RA, January 1999) and qualitative analyses of fumed slag (May 2001) are attached as Appendix B. In April 2005, Montana Department of Environmental Quality representatives collected fumed slag samples from the East Helena Plant to assess the potential environmental impacts from its use as an iron substitute within the cement manufacturing industry. A copy of the April 2005 fumed slag sampling event results is attached as Appendix B. A July 2006 Department Environmental Impact Statement (EIS) contains additional slag related information.

The geotextile and geomembrane will be laid, sewn, and secured as detailed. Additionally, sandbags will be placed intermittently within the center liner area to prevent the liner from being picked up by wind uplift or other forces. This will be done in sufficient quantity to ensure the liner stays in place. As an added preventative measure, URS/CWC will utilize sandbags made of UV Resistant 9-mil PE, which will provide superior UV resistance (compared to standard plastic woven sandbags) to prevent breakdown by sunlight.

URS/CWC will utilize the services of a subcontractor, Northwest Lining & Geotextile Products, Inc., for the installation of the temporary demolition caps. Complete details for the geotextile, geomembrane, and liner attachment to be utilized are contained in Attachment D of this Work Plan.

5.8 Equipment

A preliminary equipment list is provided below for this project. Equipment of similar size and weight by an alternate manufacturer will be substituted or added if necessary during the course of the project. Attachments used with the below listed Excavators may be interchanged as required to meet the specific requirements of the structure on which they are utilized. Therefore, each excavator may attach a bucket in place of the breaker for load out in particular procedures. Attached is a list of proposed equipment types and sizes:

- 75,000 – 175,000 LB. sized Excavators with various attachments;
- Rubber Tired Loaders with a 4 cy – 7 cy Bucket Capacity;
- Track Loaders with a 1.25 cy – 3.40 cy Bucket Capacity;
- Skid Steer Loaders;
- 2000 – 3500 Gallon Water Trucks;
- 25-40 Ton Rock Trucks;
- 10-Wheel Dump Trucks;
- Scrappers;
- Motor Graders; and
- Misc. Equipment (Man Lifts, Air Compressors, Torches, etc.).

5.9 Storm Water Pollution Prevention Plan

URS understands and appreciates the importance of the SWPPP due to the present concerns and conditions of the ASARCO facility. URS will utilize Best Management Practices (BMPs) for various construction activities. From the existing SWPPP, applicable information, such as management practices for the hazardous material storage areas, will be incorporated into URS' Best Management Practices. Other material handling practices related specifically to the decontamination and demolition activities will be addressed. Management practices for cross-contamination control will be addressed, such as avoiding spills from construction vehicles during hauling, loading, servicing, and fueling and controlling contaminated soil erosion. Changes to the storm drainage system due to demolition will be addressed as the structures are demolished and the site conditions change.

Standard erosion control measures will also be utilized, including controlling dust, providing straw bales around storm drain inlets, placing sand-bags at critical perimeter locations, and avoiding off-site tracking of debris from vehicles. Provisions to avoid ponding and maintain excavations free of storm water runoff will

be addressed. Typically, this will involve filling these locations prior to storms. Measures for erosion control will be added as the project progresses.

Inspection of the erosion control measures will be made prior to, during, and after storms to evaluate the adequacy of these measures and to manage corrections as necessary. Documentation of the inspection and correction activities will be maintained, as required. Generally, the inspection and documentation will be done by the Project Manager / Engineer. Copies of the documentation will be forwarded to ASARCO for review and records.

6.0 DUST CONTROL PLAN

The general requirements of this plan are to provide adequate resources to control dust and to detail the means and methods that will be utilized to implement dust control measures during the cleaning and demolition in order to support scheduled activities/operations within the ASARCO facility. URS/CWC's dust control measures are designed to control the emission of visible fugitive nuisance dust. These controls will be accomplished through the use of administrative, engineering, and physical controls that will include, but not be limited to the following:

- Wetting surfaces with water;
- Application of dust suppressants or encapsulates, where applicable;
- Minimizing soil, road, and surface disturbances;
- Minimize dusting exposure periods and wind erosion before dust-abatement measures are applied;
- Curtailing of work activities during high wind conditions (over 15 MPH average hourly rate);
- Controlling vehicle/equipment speeds (10 MPH maximum);
- Restricting traffic to designated roads/corridors; and
- Equipment Selection.

URS/CWC considers the mitigation of airborne dust generation to be a priority. Throughout the project, URS/CWC will take all necessary steps to effectively control dust in the working area during demolition operations. As previously mentioned, URS/CWC will remove at ground level and at all accessible areas all gross debris accumulation that could be a source of airborne dust. Furthermore, URS/CWC will institute a program of pre-wetting and moistening building interiors and horizontal surfaces where dust has accumulated. This pre-wetting of the structure interiors will limit the ability of remaining dust to become airborne during the demolition process. As the structures are demolished, the dust will be allowed to fall to the ground where it can be gathered, containerized appropriately, and properly managed.

6.1 Application With Water During Demolition

The use of water will be the main source for dust control. URS/CWC will keep all work areas (including roads, access points) within the facility, wet during work activities. This will be accomplished by using 2,000-gallon water trucks. Each water truck will be equipped with spray-bars for wetting haul and access roads; water cannons and necessary hoses, valves, and fittings will be used to provide spray water for dust control where needed in remote areas where a water truck can not be utilized.

Furthermore, during the life of the project water truck(s) will be available during the actual demolition of the above grade steel and concrete structures. Localized fine water spray pointed to the source of demolition (and therefore dust source) reduces dust particles to become airborne. Additionally, URS will utilize a Dust Boss™ water misting system. The Dust Boss™ is a fully automatic, oscillating ducted fan with a high pressure misting system that creates a high performance dust barrier. Boss™ uses a high pressure misting system to create an ultrafine mist that attracts dust and drives the dust particles to the ground. During structure demolition, this equipment will be pre-positioned in an area that will ensure the generated dust barrier is effective. To minimize water run-off, both the water truck and Dust Boss™ water supply will be used only if necessary.

6.2 Dust Control During Stack Demolition

With regards to the felling of the stacks, all stack interior cleaning has been performed to remove all loose dust and debris that could be a potential dust source. Dust generated from the felling process will come from two primary sources: (1) from existing soil and dust particles at grade; and (2) from the fracturing of stack concrete as it impacts the ground. Dust will not be generated from the interior sections of the stacks since cleaning of these structures has previously taken place. The cleaning of the interior sections of the stacks is discussed in Asarco's 2007 quarterly and annual completion reports. To minimize the amount of dust generated from at grade soil, URS/CWC will utilize water trucks to wet the ground of anticipated stack landing zone. This will be performed on the day of the blast, based on the landing zone analysis of the blasting subcontractor. With regards to the fracturing of stack concrete as it impacts the ground, URS/CWC will utilize several Dust Boss™ water misting systems. These systems will be positioned adjacent to the landing zone of the stack to be felled. They will be turned on prior to the actual felling of the stack to create curtain of water mist particles around the impact area, thereby, minimizing generation of airborne dust. At all times during the stack felling process, the minimization of dust will be given top priority.

6.3 Dust Control During Loading and Debris Transportation

During loading, unloading, and material transfer operations, URS/CWC will minimize material drop heights to reduce emission of fugitive dust. During loading of demolition debris, additional spray water will be utilized to control fugitive dust emissions from this operation. After demolition debris is loaded into the truck beds, URS/CWC will then moisten the debris payload down prior to the vehicle leaving the loading areas.

As described above, during debris transportation, URS/CWC will construct a truck moistening station at the exit of the ASARCO site over to the CAMU site. This station will consist of a scaffolding platform on which personnel will mist water on the loaded debris as a final step before it travels outside the property fence line and across the County road. The spray will add a final moisture barrier/binder to the debris for the short distance to the CAMU. Transport vehicles will be limited to a maximum 10 miles per hour while both on-site and during transport. Limiting speeds will prevent dust from become airborne during transport and will prevent the kick-up of dust due to rolling tire action.

6.4 Dust Suppressant

The primary dust control measure to be used will be water. However, the application of an accepted dust suppressant dispersed from the water trucks or special equipment as a dust suppressant may be required

during periods of time that the application of water alone is inadequate for dust control. Dust suppressant product information and MSDSs will be submitted for approval prior to usage and/or application.

6.5 Area Control

URS/CWC will use specific loading areas for each decontamination/demolition removal location to minimize disturbances and control material transfer operations. During the demolition of each structure, URS/CWC will designate a staging and loading area directly adjacent to each structure. Often this area will be within the footprint of the structure being demolished. This staging and loading area, specific to each structure, will be kept constant and will be maintained to control the migration of dust and debris from moving material unnecessarily.

6.6 Water Source

URS/CWC will utilize the existing ASARCO provided fill station, adjacent to Upper Lake, as the source of non-potable water to be utilized for dust suppression operations. The fill station water source used for dust suppression is Upper Lake.

6.7 Field Quality Control

URS/CWC Project Staff (i.e., Project Superintendent, Foremen, H&SP) will inspect work areas daily to assess the need for implementation (or additional implementation) of dust control measures.

6.8 Overall Dust Control Application

URS/CWC will control fugitive dust emissions by using the following overall methods:

- Provide dust suppression (water) before, during, and after demolition of a structure, provided it is safe to do so.
- In cases where structures are to be dropped (stack demolition, elevated structures), URS/CWC will moisten the targeted drop area prior to the demolition of the structure.
- Provide dust control during material sizing and loading operations.
- Control material drop heights during loading, unloading and material transfer operations.
- Minimize and control material handling operations.
- On-site vehicular traffic control and haul road maintenance
- If necessary, URS/CWC will apply other approved methods for control of dust during specific procedures.

7.0 WASTE MANAGEMENT PLAN

Prior to and during completion of the 2008 Cleaning & Demolition and CAMU Project, URS/CWC will utilize this Waste Management Plan for the coordination and off-site disposal of the various waste streams to be generated during the decontamination and demolition activities. This plan has been developed to provide guidance, direction and procedures for managing the handling and disposal of hazardous waste solid and liquid waste, as well as non-hazardous wastes, generated as a result of the site cleaning, asbestos abatement, and demolition of the facilities at the East Helena facility. This plan will describe the

responsibilities and procedures to be implemented by URS/CWC for the control and disposition of waste at the site.

7.1 Waste Scenarios

During the cleaning and demolition of the 2008 areas, it is expected that a variety of wastes will be generated and that the anticipated waste materials include, but are not limited to, the following categories:

- Asbestos Containing Materials;
- Heavy Metal Impacted Solids; and
- Demolition Debris.

The compounds that are included in these categories may occur separately or in combination.

7.2 Description of Solid Waste Disposal Options

For the purposes of disposal disposition, waste generated during the site activities will be subject to the following disposal options:

- Clean steel, tin, and non-ferrous materials for off-site recycling;
- All other solid waste, whether non-hazardous or hazardous for disposal in the CAMU;
- Friable and Non-Friable Asbestos Containing Waste for disposal in the CAMU;
- Personal Protective Equipment for off-site disposal by ASARCO; and
- Liquid waste for recycling or off-site disposal by ASARCO.

Asarco does not anticipate encountering any non-CAMU eligible wastes that other than those previously discussed in the Work Plan. Non-CAMU eligible waste will be managed in accordance with applicable rules and regulations.

7.3 Management of Non-CAMU Waste Streams

During the cleaning and demolition activities, URS/CWC shall containerize and store all hazardous and universal wastes generated as part of the work. URS/CWC shall use containers made of or lined with materials, which will not react with, and are otherwise compatible with, the hazardous waste to be transferred or stored, so that the ability of the container to contain the waste is not impaired.

If a container holding hazardous waste is not in good condition (e.g. severe rusting, apparent structural defects), or if it begins to leak, URS/CWC shall immediately transfer the hazardous waste from the container to a container that is in good condition. URS/CWC shall inspect areas used for hazardous waste storage or transfer at least weekly for leaking containers or aboveground tanks, for deterioration of containers, tanks and the containment systems caused by corrosion. At the current time, URS/CWC anticipates utilizing the Direct Smelt Building or Shop Storage Building for the storage of containerized hazardous and Universal wastes.

Incompatible wastes and materials shall not be placed in the same container or aboveground tank. URS/CWC will handle and manage incompatible waste in such a manner that prevents violent reactions,

generation of uncontrolled fumes, mists, gases and dusts, production of flammable fumes or gases and damage to the integrity of the waste container.

Hazardous waste shall not be placed in an unwashed container that previously held an incompatible waste or material. A container holding a hazardous waste that is incompatible with any waste or other materials transferred or stored nearby in other containers, piles, open tanks, or surface impoundments shall be separated from the other material.

URS/CWC shall store all hazardous waste in containers suitable for transport in accordance with 49 CFR Parts 170 through 179 or the requirements of the transporter, whichever is more stringent. No waste shall be transferred or stored in a manner which may rupture the container or cause it to leak.

7.4 Labeling of Waste

Proper marking and labeling shall be applied by URS/CWC for all hazardous and non-hazardous waste at the time the waste is placed in the container. Waste that is stored in bulk shall be posted with a sign that bears an appropriate waste label as well as the information required for waste area signs as applicable.

During decontamination activities or as discovered, URS/CWC may encounter waste streams that are placed into containers that are either previously unidentified or the exact waste characterization (i.e., Haz or Non-Haz) is unknown. For those instances, URS/CWC will label the container with a "Non-Classified Waste Material; Laboratory Analysis in Progress" label. This label will identify the material as an uncharacterized waste stream. URS/CWC will indicate on the label where the containerized material came from and if a reasonable amount of information is available, what the suspected waste stream is. An accumulation date will be added to the label. The waste determination and accumulation of wastes will be managed in accordance with applicable rules and regulations. Asarco will be the generator and will be responsible for the management of the waste.

7.5 Management of CAMU Approved Waste

Once the CAMU is ready to accept material, URS/CWC will begin the loading and transportation of stockpiled waste from the various storage areas into the CAMU. General demolition waste will be loaded with track or rubber-tired loaders and transported via rock trucks in the same manner as that for general demolition operations. Friable asbestos containing waste, that is wrapped and contained, will be loaded, transported, and placed in the CAMU cell in such a manner that the integrity of the wrapping is not breached. At no time will friable material be exposed to the environment. Non-friable asbestos waste that is placed in the CAMU will be loaded as described above for general demolition debris. Due to the impacted nature of the CAMU waste, including both asbestos and lead containing waste, URS/CWC will strictly enforce the dust control measures as described above. The placement of waste into the CAMU will be governed by the specifications set forth in the approved CAMU Design Analysis Report (including the May 22, 2008 addendum).

7.6 Waste Management Quality Control

Waste management quality control will be accomplished through the use of administrative, engineering, and physical controls that will include, but not be limited to the following:

- Routine inspections of waste storage areas;
- Curtailing of work activities during high wind conditions (over 15 MPH s average hourly rate);
- Curtailing of waste handling and transport during rain events with enough volume to create run-off;
- Pre-identification and handling of waste requiring special management; and
- Decontamination of equipment used to handle waste.

Inspections

URS/CWC shall implement inspection procedures to address potential deficiencies related to the waste storage areas. URS/CWC shall conduct, at least weekly, inspections of the areas designated for container storage, or transfer. URS/CWC shall inspect the area for evidence of deterioration of containers and secondary containment areas. Additionally, inspection of container labeling and accumulation dates will be completed to ensure that all containers are properly and legibly labeled and that no containers will or are close to exceeding the on-site storage date. URS/CWC will inspect containers and storage areas to ensure that they are not, have not, and will not be susceptible to any weather event that could cause release of a hazardous waste stream onto the site or into the storm water system.

Work Stoppage

URS/CWC shall halt work when weather conditions are such that the spread of contaminated dust and debris is likely. These conditions typically exist when there is excessive wind and/or rain. Therefore, if wind with 15 MPH average hourly rate or more evolve, URS/CWC will halt the handling of waste to prevent dust and debris from becoming airborne due to the waste management process. Furthermore, if a rain event begins, URS/CWC personnel will evaluate the site conditions. If the rain is such that no run-off is occurring, work activities will proceed uninhibited. In the event that the rain is of such volume that run-off is beginning to occur and the work activities in progress (i.e., dust cleaning, demolition of a contaminated area) could create a contaminated run-off, work will cease until such time that a run-off potential is not present. URS/CWC will evaluate these conditions with ASARCO representatives.

Special Waste Handling and Segregation

Prior to demolition activities, URS/CWC will ensure that all waste requiring special handling have been removed from the structures to be demolished. Special wastes shall consist of asbestos containing wastes, universal waste, and liquid wastes. Universal and liquid wastes will have removed the structures, handled, and stored as Non-CAMU wastes defined above. Asbestos containing waste that will be placed in the CAMU will be segregated as it is abated.

The asbestos siding will be transported and placed in the CAMU similarly to the asbestos that is currently staged and stored in the Direct Smelter Building. As a non-friable asbestos, the siding will be stacked as neatly as possible, placed on a forklift, and transported to the CAMU. There it will be placed into the CAMU in the location designated for asbestos containing material. Section 7.5 of the Work Plan further describes the management of asbestos containing material.

Decontamination of Equipment

URS/CWC will provide for the decontamination of equipment used in the handling and/or transport of demolition debris prior to the equipment leaving the site, or moving from a demolition zone to an area considered clean. URS/CWC will establish a decontamination pad, in an area agreed with and approved by ASARCO. This decontamination pad may change location dependent upon demolition activities and the evolution of the project site. This decontamination pad will be on concrete slab suitable for placement of heavy equipment.

Decontamination will consist of one or a combination of the following: brushing, vacuuming, or washing methods. The goal of the decontamination is to remove heavy metal laden bearing dust and debris from the areas of the equipment that came into contact with this waste. Upon completion of the decon activity, any removed dust and debris will be hauled into the CAMU.

Equipment that has been decontaminated will be inspected upon completion to ensure the adequacy of the process and to document the process to ensure quality control.

**2008 CLEANING AND DEMOLITION PROJECT
ASARCO EAST HELENA PLANT
INTRODUCTION, PROJECT SUMMARY, AND REPORTING**

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**2008 CLEANING AND DEMOLITION PROJECT
ASARCO EAST HELENA PLANT
INTRODUCTION, PROJECT SUMMARY, AND REPORTING**

Prepared by:
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AND

2008 WORK PLAN

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(MARCH 2008)

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2008 CLEANING AND DEMOLITION PROJECT WORK PLAN

ASARCO EAST HELENA PLANT

INTRODUCTION, PROJECT SUMMARY, AND REPORTING

1.0 INTRODUCTION

Asarco Incorporated, now known as ASARCO LLC (Asarco), and the Montana Department of Environmental Quality (Department) entered into a 2005 Consent Decree (2005 Decree), on February 15, 2005, to resolve alleged violations of the Montana Hazardous Waste Act (MHWa) and Administrative Rules of Montana (ARM). The 2005 Decree required Asarco to develop and implement yearly Work Plans designed to remove, store, and properly dispose or recycle all remaining hazardous waste and recyclable materials from identified process units located within Asarco's East Helena Plant. The department acknowledges that Asarco accomplished all of the activities contained in the 2005 Decree Work Plans, except for removing and properly disposing hazardous waste being stored in Subpart DD containment structures, cleaning the thawhouse building, and cleaning of certain portions of the acid plant contact section.

On October 2, 2007, Asarco and the Department entered into a 2007 Administrative Order on Consent (2007 Order), which allows Asarco to continue with the cleanup processes established under the Work Plan provisions of the 2005 Decree. The 2007 Order requires Asarco to develop and implement a yearly Work Plan for calendar years 2007-2012 to remove, store, and properly dispose or recycle all remaining hazardous waste and/or secondary material located in the process units, pollution control devices, and storage units and other identified areas of the facility. To the extent that Asarco disposes of hazardous waste and/or secondary material, it will do so either by removal to an approved CAMU at the facility or by removal to another facility according to proper regulatory procedures under MHWa or its regulations there under.

Asarco submitted and completed the provisions outlined in the August 2007 Cleaning and Demolition Work Plan, as further defined as the Phase IV, Stage 1 area. The March 2008 Comprehensive List of Process Units and Other Areas of Interest describes the past cleaning efforts already undertaken at the East Helena Plant. A copy of the March 2008 Comprehensive List of Process Units and Other Areas of Interest is attached as Appendix A. Asarco recognizes that this comprehensive list may need to be modified as a result of future investigations and/or inventories. This list does not necessarily constitute a complete inventory of areas of interest (AOIs) at the smelter complex, nor does it describe the current clean-up status at these areas. The Department shall maintain, on file, a complete inventory of AOIs and their current clean-up status. The 2008 Cleaning and Demolition Project Work Plan builds upon Asarco's past efforts for removing and properly managing materials.

The 2008 Cleaning and Demolition Project Work Plan describes the management activities scheduled for this calendar year. Asarco has selected URS/Cleveland Wrecking Company (URS/CWC) to conduct the 2008 Cleaning and Demolition Work Plan, which is contained within this submittal. For the

purposes of this 2008 Cleaning and Demolition Project Work Plan, the environmental cleaning, demolition, and handling procedures are primarily highlighted. URS/CWC will employ a systematic approach for cleaning, demolition, hauling, and disposition of the removed materials from identified process locations. The specific work practices associated with these activities are fully described within the accompanying URS/CWC Work Plan.

On February 26, 2008, Asarco submitted the Interim Measures Addendum Work Plan (Demolition Foot Print Exposed Areas Soil Sampling, Excavation, and Confirmatory Sampling Work Plan and Blast Furnace and Monier Flue Cleaning, Demolition, and Soil Sampling Work Plan) to EPA. The ability to execute this 2008 Cleaning and Demolition Project Work Plan is dependent upon sequencing the implementation of both Work Plans. EPA must provide approval of the Interim Measures Addendum Work Plan no later than May 1, 2008 for the 2008 Cleaning and Demolition Project Work Plan activities to proceed. If EPA approval is received on or before May 1, 2008, Asarco will mobilize and begin the 2008 Cleaning and Demolition Program on or before June 11, 2008.

To facilitate removal of material under this Work Plan, Asarco has prepared the following decision matrix table to determine the priority in managing removed material from the East Helena Plant.

DECISION MATRIX FOR MAJOR PROCESS LOCATIONS

Process Location	Criteria For Prioritizing Management of Recyclable material			
	Level of Contamination	Volume of Recyclable material	Degree of Exposure	Condition of Structures
Non-Production	Low	Low	Low	Good
Tanks	Low	Low	Moderate	Good
Ore Storage	Low	Low	Low	Good
Ore Receiving	Moderate	Moderate	Low	Good
Sinter Plant	Moderate	High	Low	Fair
Acid Plant	Moderate	Moderate	Low	Good
Blast Furnace	Moderate	Moderate	High	Fair
Dross Plant	High	High	Moderate	Good
Former Zinc Plant	High	Moderate	High	Poor
Water Treatment	Low	Moderate	Low	Good

The materials from the process locations that are shaded in the preceding matrix table were removed under the previous cleaning and demolition work plans, with the exception of the contact section of the acid plant, which is scheduled for cleaning and demolition in 2008. Based upon the process locations that have not been completed, Asarco proposes to focus the 2008 Cleaning and Demolition Project activities within the areas further described in the accompanying URS/CWC Work Plan.

2.0 PROJECT SUMMARY

Phase IV, Stage 2 Work Areas

The Phase IV, Stage 2 work areas contain structures that are scheduled to be cleaned and demolished during calendar year 2008, as further described in the following table.

Phase IV, Stage 2

- | | |
|------------------------------|--|
| ○ Blast Furnace Flue | ○ Truck Loading & Spray Dryer Building |
| ○ Acid Plant Cooling Towers | ○ Sand Filters |
| ○ 400' D&L Stack | ○ 200' Acid Stack |
| ○ Acid Plant Contact Section | ○ Monier Flue |
| ○ Blast Furnace Baghouse | ○ 425' Blast Furnace Stack |
| ○ Ore Unloading Bins | ○ Sample Mill |
| ○ Crushing Mill | ○ Auto Shop |
| ○ Pump Tank Building | ○ Main Blower Building |
| ○ Acid Plant Shop | ○ Ringling Dust Building |

Asarco originally anticipated including the cleaning and demolition of the blast furnace flue and Monier flue within the 2008 Cleaning and Demolition Project Work Plan. However, on March 29, 2007, EPA requested that Asarco prepare a separate interim measures (IM) work plan for these flue systems. On February 26, 2008, Asarco submitted an Interim Measures Work Plan Addendum (IMWPA) to EPA that included: 1) existing soil data, 2) demolition footprint exposed soils sampling, and 3) exposed soils removal criteria and confirmatory sampling. On May 8, 2008, Asarco submitted a revised IMWPA to EPA that reflected responses to EPA comments and to the technical discussions that took place on May 2, 2008 between Asarco, the Department, and EPA. On May 21 and 22, 2008, Asarco provided EPA with supplemental information to the revised IMWPA. On May 22, 2008, EPA approved the revised IMWPA. This IMWPA will govern all future actions within these flue systems.

3.0 MANAGEMENT OF REMOVED MATERIALS

To the extent that Asarco disposes of hazardous waste and/or secondary material, it will do so either by removal to the approved CAMU Phase 2 cell at the facility or by removal to another facility according to proper regulatory procedures under MHWa or its regulations there under.

4.0 INTERIM MEASURE PROGRAM

On May 5, 1998, ASARCO and the United States Environmental Protection Agency (EPA) entered into a Consent Decree (RCRA Consent Decree, U.S. District Court, 1998) to initiate the corrective action process in accordance with the Resource Conservation and Recovery Act (RCRA) and the Clean Water Act (CWA). A major area of overlap between the RCRA Consent Decree and the Administrative Order on Consent involves the backfilling and interim capping of areas in which cleaning and demolition had occurred and where exposed soils were present.

Asarco intends to address the interim capping by:

- Identifying the locations in which backfilling using fumed slag may be required to achieve proper site stabilization and drainage prior to installing the interim cap;
- Presenting the locations that will require interim capping;
- Providing the interim capping techniques, procedures, and materials that will be used to inhibit infiltration of precipitation within the demolition areas; and
- Outlining the general, short-term maintenance for the interim cap.

The 2008 Cleaning and Demolition Project Work Plan involves removing structural components to existing building grade. The remaining features, including existing foundations and concrete slabs that are not removed, will be incorporated under an interim cap.

The areas subjected to 2008 Cleaning and Demolition Project Work Plan will undergo final cleaning (see Section 4.1). Select areas may be backfilled with fumed slag to achieve proper drainage prior to installing the interim cap (Section 4.2). The locations requiring interim capping will be identified (Section 4.3) and the techniques, procedures, and material used for installing will be outlined (Section 4.4). The general, short-term maintenance of the interim cap will be necessary to ensure integrity (Section 4.5).

4.1 Final Cleaning Action

The final cleaning of the 2008 Cleaning and Demolition Project will involve a three-phased approach. First, the exposed concrete footprint will undergo a rough cleaning using conventional scraping and shoveling methods. Although this cleaning technique provides an efficient method for removing residual materials, it cannot achieve the prescribed level of cleanliness. To supplement conventional cleaning methods, the concrete footprint will be mechanically swept. The use of the mechanical sweeper will remove surface materials that may not be completely removed using conventional cleaning techniques. Finally, the concrete footprint will be cleaned using a high-velocity vacuum. This final cleaning method will remove any fine material, particularly along the interfaces between the concrete floor and building columns, fan foundations, and support walls.

4.2 Backfill Locations and Fumed Slag Composition

Once final cleaning activities are complete, certain areas may be graded and, as necessary, backfilled to achieve proper drainage prior to placement of an interim cap. Asarco will use on-site fumed slag as backfill. The fumed slag may be placed in areas that are below grade or require drainage assistance. The fumed slag will serve as the subgrade for the interim cap, over which an engineered cap comprised of non-woven geotextile and RPE will be placed. The fumed slag has been used as a grading material at the plant site in the past and possesses good physical characteristics for fill or sub-foundation uses (granular material and compacts wells). Although fumed slag contains elevated total metal concentrations, the metals are bound in a silicate-iron matrix with characteristics of low metal leachability. The potential for metal migration from the fumed slag is low. In response to EPA's July 6, 2006 comments, Asarco provided the rationale for using fumed slag for backfilling purposes, including study results derived from the RCRA Consent Decree investigations. The slag-related investigative

results contained in the Current Condition Release Assessment (CC/RA, January 1999) and qualitative analyses of fumed slag (May 2001) are attached in Appendix B. In April 2005, Department representatives collected fumed slag samples from the East Helena Plant to assess the potential environmental impacts from its use as an iron substitute within the cement manufacturing industry. A copy of the Department's April 2005 fumed slag sampling event results is attached in Appendix B. A July 2006 Department Environmental Impact Statement (EIS) contains additional slag related information.

Most, but not all of the footings or similar structures encountered during the implementation of the Work Plan will be brought to grade. Most of the concrete, asphalt slabs, and some interior wall and/or footings will remain in place. The presence of above ground concrete, asphalt, walls, or footings will not compromise nor impair the ability to achieve proper drainage. It is anticipated that structures greater than three feet in height will remain following the 2008 cleaning and demolition phase of the project. The areas adjacent to these elevated structures will be contoured with fumed slag. This practice will minimize abrupt edges, facilitate the ability to place the interim cap, and reduce the potential for future liner damage.

Regardless of these efforts, the integrity of the cap may be affected by excessive wind or other condition beyond our control. The placement of additional sandbags and tethered vehicle tires over problematic cap areas will be employed to address liner displacement issues. On-going maintenance and repair of the interim cap will be employed (Section 4.5).

4.3 Location of Interim Caps

Once the required backfilling has occurred, certain areas will be capped to control drainage and potential infiltration from precipitation and run-on within the newly exposed footprints. The described capping is considered a precautionary, interim measure. The capping techniques, procedures, and materials are designed to control drainage, potential infiltration, and run-on until the final cover system is constructed. Although the capping program is interim, it is possible that many of the features such as placement of the fill material and interim caps will remain in place even after a final remedy is implemented. Sheet number 13 of the attached URS/CWC 2008 Cleaning and Demolition Work Plan illustrates the areas in which interim capping will be placed following the 2008 cleaning and demolition.

4.4 Interim Cap Techniques, Procedures and Materials

Interim caps will be constructed within certain exposed footprints in the demolition areas. The interim cap details and specifications are illustrated within the attached URS/CWC 2008 Cleaning and Demolition Work Plan, Sheet number 14. In general, from the top down, the interim cap will consist of the following:

- Sand bags to hold down the interim cover during windy periods;
- A 24-mil reinforced polyethylene (RPE) with the PRE seams overlapped 3 inches and sewn;
- A minimum 10 ounce non-woven geotextile;
- A prepared sub-grade consisting of fumed slag fill for grading purposes; and
- Existing soils, concrete slabs and/or concrete foundations.

4.5 Maintenance of Interim Cap

4.5.1 Site Inspection

Periodic inspections of the interim cap will be conducted to ensure that the interim cap systems are performing adequately and to identify problems and provide proper maintenance of interim cap systems. The inspection program will involve three types of inspections: (1) informal inspections, (2) periodic technical inspections, and (3) special inspections after extreme events.

The informal inspection is actually a continuing effort by on-site personnel, performed in the course of their normal duties. Periodic technical inspections and inspections after extreme events will be performed by onsite Asarco staff (or other technical representatives) familiar with the design and construction of the capping systems. The periodic technical inspection will be performed monthly to document the condition of the cap components. Special inspections are very similar to periodic technical inspections but are performed only after an extreme event such as a rare rainstorm, tornado, or earthquake.

The inspection of the interim cap system will typically involve walking the entire site in a systematic fashion that ensures a comprehensive review. If any problem or deficiency is found, the inspector should record the location on a field sketch. A complete description of the affected area, including all pertinent data (i.e., size of the area and other descriptive remarks such as exposed synthetic materials) should be recorded on the appropriate reporting forms. An accurate and detailed description of observed conditions will enable a meaningful comparison of conditions observed at different times.

Photographs may be helpful in documenting problems. Provisions should be made to keep a photographic log of problems, repairs, and general site conditions. This log will provide valuable information when evaluating the performance of the interim cap system and when planning repair strategies.

It is important to have a record of site conditions at various stages after capping. Good documentation will provide valuable information to help maintenance and repair planning. Inspection checklists to assist in the inspection and documentation procedures should be developed and modified as needed throughout the interim capping period. The checklist will (at a minimum) contain items to evaluate such as membrane condition, sand bag condition, liner seams, liner/concrete attachments and site drainage. A copy of an example inspection form is attached in Appendix C.

4.5.2 Site Security

The interim cap will be contained within the fenced Asarco facility and will be kept secured so that people or animals do not disturb the interim cap. Site access by ongoing plant or demolition operations will be limited through the use of barricades, barrier tape, or temporary fencing. Plant personnel will advise contractors conducting site activities of access limits within or near capped areas.

4.5.3 Site Maintenance

As shown in Table 4-1, there are four different types of maintenance tasks listed by priority rather than by frequency. Table 4-1 is provided as a guide to prioritize the different types of maintenance activities

in proper perspective. The different types of maintenance are also discussed in the following subsections.

TABLE 4-1. PRIORITY OF MAINTENANCE TASKS

Priority	Type of Maintenance	Description and Example
1	Emergency	A situation requiring immediate attention (for example, fire or flood).
2	Preventative	Scheduled inspection and minor repairs carried out during inspection (for example, cleaning of membrane liner).
3	Corrective	Corrective maintenance required as a direct result of scheduled inspection (for example, repair of torn membrane liner).
4	Housekeeping	Routine housekeeping of buildings and grounds (for example, disposal of debris and general housekeeping).

1. Emergency maintenance - Emergencies are situations arising unexpectedly that require urgent attention. Often, immediate response must be provided to avert potential serious damage. Provisions for emergency repair/damage control activities must therefore be in-place prior to the occurrence. Toward this end, an Emergency Contacts list will be prepared and kept current, and include local emergency response organizations, assigned maintenance personnel, and agency and owner representatives. Table 4-2 provides a partial list of emergency contacts.
2. Preventative maintenance - Preventative maintenance will be performed to extend the life of equipment and structures. With the exception of routine surveillance and inspections, preventative maintenance tasks should be scheduled in accordance with the recommendations of the material and equipment manufacturers. Scheduled inspection and maintenance of all site facilities will help ensure that potential problems are discovered and corrected before they become serious, as well as providing for the performance of periodically required upkeep. During routine inspections, the Asarco personnel should be alert for any abnormal conditions, which could indicate potential problems.
3. Corrective maintenance - Corrective maintenance consists of repair and other non-routine maintenance. Asarco personnel must always be ready to handle these tasks as the need arises. Corrective maintenance procedures should follow the equipment or material manufacturer's recommendations. In planning for the corrective maintenance, arrange for the assistance of an engineer or manufacturer's representative, if necessary.
4. Housekeeping - Maintaining well-kept facilities indicates pride on the part of the Asarco personnel, and provides for good and efficient operations. Well-kept property cultivates good neighbor relations with adjacent property owners. Housekeeping tasks may include collecting/disposing of litter or debris and maintaining access barriers.

TABLE 4-2. EMERGENCY NOTIFICATION CONTACTS AND PHONE NUMBERS

General Emergency Numbers	
Fire Department	911
Ambulance	911
Police	911
Corporate Resources	
ASARCO LLC	
Blaine Cox (East Helena Smelter)	(406) 227-4098
Jon Nickel (East Helena Smelter)	(406) 227-4529
Other Resources	
U.S. EPA (24-hour emergency)	(206) 553-1263
Superfund/RCRA Hotline	(800) 424-9346
Hydrometrics, Inc.	(406) 443-4150

4.6 Departmental Inspections and Confirmation

Asarco will notify the Department within five (5) working days after removal of the material and demolition a specific process unit or areas has been completed. The purpose of this notification is to request that the Department, through its oversight authority, inspect and confirm that the cleaning activity has been performed in accordance with the Work Plan.

These notifications and inspections will allow the Department to document that Asarco has fulfilled all the conditions of the 2007 Order, of which the 2008 Cleaning and Demolition Project Work Plan is a part. The Comprehensive List of Process Units and Other Areas of Interest will be regularly updated after the Department inspects the process units or locations.

5.0 REPORTING

5.1 Quarterly Reporting

Asarco intends to begin the work outlined in this Work Plan on or before June 11, 2008. Within 30 days after each calendar quarter (no later than July 31, 2008, October 31, 2008, and, if necessary, January 31, 2009), Asarco will submit quarterly reports that contain the following information:

- a. A description of the portion of the Work Plan completed;
- b. Summaries of all deviations from the approved Work Plan during the reporting period;
- c. Summaries of all problems or potential problems encountered during the reporting period;
- d. Projected work for the next reporting period;
- e. Documentation of all shipments of recyclable material and hazardous waste off-site including shipping papers such as manifests (if required); and
- f. Description of each shipment of reclaimed or recycled material made during the preceding quarter indicating how the material is managed, handled, or treated for recovery or recycling that demonstrates that it has value. The information to be submitted to the Department in making a successful stewardship demonstration is: (1) acceptance criteria required by the

receiving facility (expressed as a minimum threshold of recoverable metals and maximum allowable toxic metals), (2) a demonstration that the receiving facility is in compliance with all applicable environmental requirements, (3) a copy of the contractual agreement between Asarco, its broker and the receiving facility, (4) the name of the state or provincial regulatory contact and facility contact.

Quarterly reports will not be required after submittal of the 2008 Work Plan Completion Report.

5.2 Annual Reporting

Within thirty (30) days, but, no later than January 31, 2009, after Asarco concludes that it has fully implemented the materials removal outlined in the 2008 Cleaning and Demolition Work Plan, Asarco shall submit a 2008 Work Plan Completion Report to the Department. The contents of the Work Plan Completion Report will include:

- a. A description of the cleaning efforts conducted;
- b. If applicable, documentation of all shipments of recyclable materials and/or hazardous wastes;
- c. Summaries of all problems or potential problems encountered during the reporting period; and
- d. Certification that the Work Plan has been fully implemented.

6.0 REFERENCES

ASARCO LLC, 2008. ASARCO East Helena Smelter 2008 Interim Measures Work Plan Addendum, Blast Furnace Flue and Monier Flue Cleaning and Demolition and Demolition Foot Print Exposed Areas Soil Sampling, Revised May 2008.

Hydrometrics, Inc., 1999. Interim Measures Work Plan, East Helena Facility, April 1999, Revised July 1999. Includes Volume II, Corrective Action Management Unit Design Report.

Hydrometrics, Inc., 2000. RCRA Facility Investigation Work Plan, East Helena Facility, March 2000.

2008 CLEANING AND DEMOLITION PROJECT
ASARCO EAST HELENA PLANT
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ATTACHMENT B	CONSTRUCTION SCHEDULE
ATTACHMENT C	IRS ENVIRONMENTAL HAZARDOUS MATERIALS ABATEMENT PLAN
ATTACHMENT D	DEMOLITION AREA CAP INFORMATION

2008 CLEANING AND DEMOLITION PROJECT

ASARCO EAST HELENA PLANT

2008 WORK PLAN

1.0 INTRODUCTION

1.1 Purpose of the 2008 Cleaning & Demolition

URS / Cleveland Wrecking Company (URS/CWC) has prepared this Cleaning & Demolition Work Plan, hereafter referred to as the Work Plan, for the purpose of providing a description of asbestos abatement, environmental cleaning, demolition, and waste handling procedures, which URS/CWC will be implementing during on-site activities in the 2008 calendar year. This Work Plan has been prepared in accordance with the Construction Documents for the "2007 Cleaning & Demolition Project and CAMU Phase 2 Cell Project" of the ASARCO East Helena Plant located at 100 Smelter Road in the City of East Helena, Montana. The procedures described in the Work Plan comply with the Construction Documents and all Federal, State, and local governing regulations.

1.2 Site Location and Description

The ASARCO East Helena facility is a former lead smelter located on approximately 141 acres. The facility is surrounded by agricultural property on the west; Prickly Pear Creek and agricultural property on the east; Montana Highway 12 and residential properties to the north; and Prickly Pear Creek and agricultural property to the south. A site vicinity map is shown Sheet 1 and a site plot plan is shown on Sheet 2 of the Construction Document Drawings, which are included as Attachment A.

The abatement, environmental cleaning, and demolition activities at the site have been broken into two areas: Stage 1 and Stage 2. Stage 1 and Stage 2 have been labeled as Phase IV demolition activities. The Phase I, II, III, and Phase IV, Stage 1 structures have been previously abated, cleaned, and demolished in previous years. The Phase IV, Stage 2 structures will be addressed in 2008, with some of the abatement and cleaning activities having already been completed in 2007. The various areas referenced consist of the following structures:

Phase IV, Stage 2

- | | |
|------------------------------|--|
| ○ Blast Furnace Flue | ○ Truck Loading & Spray Dryer Building |
| ○ Acid Plant Cooling Towers | ○ Sand Filters |
| ○ 400' D&L Stack | ○ 200' Acid Stack |
| ○ Acid Plant Contact Section | ○ Monier Flue |
| ○ Blast Furnace Baghouse | ○ 425' Blast Furnace Stack |
| ○ Ore Unloading Bins | ○ Sample Mill |
| ○ Crushing Mill | ○ Auto Shop |
| ○ Pump Tank Building | ○ Main Blower Building |
| ○ Acid Plant Shop | ○ Ringling Dust Building |

On March 29, 2007, EPA requested that Asarco prepare a separate interim measures work plan for the cleaning and demolition of the blast furnace flue and Monier Flue. On February 26, 2008, Asarco submitted to the EPA the 2008 Interim Measures Work Plan Addendum (IMWPA) (Demolition Foot Print Exposed Areas Soils Sampling, Excavation, and Confirmatory Sampling Work Plan and Blast Furnace Flue and Monier Flue Cleaning, Demolition and Sampling Work Plan). On May 8, 2008, Asarco submitted a revised IMWPA to EPA that reflected responses to EPA comments and to technical discussion that took place on May 2, 2008 between Asarco, the Department, and EPA. On May 21 and 22, 2008, Asarco provided EPA with supplemental information to the revised IMWPA. On May 22, 2008, EPA approved the revised IMWPA. The cleaning and demolition of the blast furnace flue and Monier flue will be conducted by URS using the procedures outlined in this Work Plan.

1.3 Pre-Construction Activities

Prior to the initiation of field operations, the following preconstruction tasks will be completed:

- Site-Specific Health and Safety Plan (HSP);
- Detailed Construction Schedule;
- Establishment of storm water and run-off precautionary measures
- Establishment of administrative offices, staging areas; personnel decontamination facilities;
- General construction permitting will be completed prior to on-site activities; and
- A preconstruction meeting will be held with ASARCO personnel and/or appointed representatives.

Site-Specific Health and Safety Plan

As required, a site-specific Health and Safety Plan (HSP) has been developed and approved for this project. The purpose of the plans will be the protection of personnel and the environment on-site, as well as the general public and environment in adjacent properties and neighborhoods. The site-specific Health and Safety Plan will be enforced within site boundaries at all times. Tailgate safety meetings will be held at the beginning of every work shift; during new phases of operation; at the time new personnel are introduced to the site; and when site conditions warrant such meetings. These meetings will identify potential workplace hazards and problems so that appropriate control measures can be implemented. The HSP will establish procedures and address emergencies that may arise during all site activities. Emergency vehicular access, evacuation procedures, and a listing of all contract personnel with phone numbers have been included in the HSP.

Detailed, specific health and safety issues related to the former processing, storage, and material handling areas within the Facility, will be identified by the URS/CWC Health and Safety Officer.

For those employees to be certified to participate in abatement and environmental activities, employee certifications will be kept on file in the project field office. Employee training requirements will meet the requirements as specified in the Construction Documents and as restated below:

Type	Required Environmental Health and Safety Training	General Work Tasks
GROUP A	None	General Work Force -- Off Plant
GROUP B	No 40 Hr OSHA	General Work Force --Off Plant
	Blood Lead Tests	General Work Force -- Off-Plant
	No Physical (<i>There must be a doctor evaluation to wear a respirator</i>)	
	Respirator Fit Test	
	Site Specific Training	(Additional PPE = Respirator, Coveralls, Showers, Lunchroom)
GROUP C	40 Hr -- HAZWOPER-OSHA	Load, Haul, Place and Compact Waste Materials and On-Plant Tasks
	Blood Lead Tests	Demolition
	Full Physical	Cleaning
	Respirator Fit Test	Backfill, Grading, and Excavation
	Site Specific Training	(Additional PPE = Respirator, Coveralls, Showers, Lunchroom)
	Asbestos - 8 Hr Worker Awareness OSHA	Asbestos Abatement Workers Only

Following is a more specific outline of the various tasks and the associated training required:

TASK for 2008 Cleaning & Demolition Project	Required Environmental Health and Safety Training
Mobilization and set-up field office and related facilities	Group A
Pre Demolition Tasks (Lock and Tag Utilities, Remove Acid Catalyst, etc.)	Group C
Cleaning	Group C
Demolition	Group C
Post Demolition Tasks (Fence, Barricade walkways, Seal flues and ducts, etc.)	Group C
Backfill, Grade, and Excavation	Group C
Extend and Survey Monitoring Wells	Group C
Prepare As-Built Survey	Group C
Final Cleaning	Group C

Detailed Construction Schedule

A detailed construction schedule has been included in (Attachment B). This schedule includes durations and milestones for all activities anticipated during asbestos abatement; cleaning; structure demolition and salvage; and material handling and transfer. The schedule is in sufficient detail to define the path of the project.

Storm Water Prevention Pollution Plan

The site's existing Storm Water Prevention Plan (SWPPP) will be utilized for this scope of work. This Plan describes storm water prevention procedures to be utilized during the work. In general, storm water runoff is routed to the internal plant water handling system. Storm water and run-off will be directed to the plant water system for treatment via the High Density Sludge (HDS) plant, to be operated by ASARCO personnel.

In areas where cleaning and/or demolition could potentially create dust laden runoff, URS/CWC will protect the drains as necessary to prevent contaminants from entering the system. This protection will consist of a combination of sand bags, hay bales, and filter fabric strategically placed to remove the solids while allowing the storm water and/or run-off to continue to the existing storm water containment and treatment system prior to discharge. URS/CWC will ensure storm water and/or run-off is free of grease and oils by utilizing methods to prevent and promptly clean any oil and grease spills.

Site Security

URS/CWC understands that the facility is currently surrounded by security fencing or structures, which will prevent unauthorized personnel access to the site. URS/CWC will follow sign in procedures and check in at the main facility gate or another gate/entrance specified. URS/CWC will control access to work areas during operating hours through the monitoring of a single ingress/egress location with mandatory sign-in procedures for all personnel. During off-hours, sensitive work areas will be cordoned off with temporary barricades, delineators and caution tape.

During the course of the 2008 cleaning and demolition, structures will be removed that are currently acting as a site "fence." URS/CWC will coordinate activities with its designated fencing subcontractor such that as structures are being demolished, new chain link fence is installed to close the opening created by demolition. In the event that the new permanent fence cannot be completed across the new opening, temporary fence panels on stands will be installed to close the opening. A temporary, delineated barricade will be put in place. The use of A-frame barricades, delineators, and caution tape will further be used to define the facility at these points.

Temporary Facilities / Construction Control

URS/CWC will establish temporary facilities and construction control procedures to be implemented at the project site. ASARCO will provide and URS/CWC will maintain suitable temporary office space to coordinate field construction activities. Adequate sanitary facilities, fences, barricades and scaffolding will be provided as needed. Storage for tools, light equipment and appropriate signs will also be established, as needed, for this project. Temporary services will be coordinated with ASARCO representatives for existing and future construction activities, demolition activities, and site traffic. Safety will be managed, including the monitoring of vehicular and pedestrian traffic and public safety, as needed.

Delineation of Work Zones

Work zones will be established during pre-mobilization planning. In general, this will include the following:

- Lead/Decon exclusion areas;
- Asbestos removal areas;
- Equipment staging areas;

- Personnel decontamination areas;
- Storage areas;
- Demolition and salvage areas;
- Loading areas/staging of off-site waste; and
- Field office/support areas.

General Construction Permitting

The following lists the applicable permits and/or notification that may be obtained or that may need to be notified by URS/CWC and/or ASARCO prior to the initiation of any fieldwork.

State of Montana

- Montana Department of Environmental Quality (MDEQ).
- Division of Occupational Safety and Health (OSHA) Department of Industrial Relations - Notification of Asbestos Abatement.
- Division of Occupational Safety and Health (OSHA) Department of Industrial Relations - Notification of Demolition Activity S-691.

Preconstruction Meeting

Following the completion of the tasks outlined above, a preconstruction meeting will be held at the facility or other location designated by ASARCO. The purpose of the meeting will be to discuss the Scope of Work and the roles of the parties involved. Details regarding the date that fieldwork will be initiated, site access requirements, hours of operation, deliverables required by ASARCO, and locations of construction equipment, staging and cleaning areas would be discussed. Participants in the meeting will include the ASARCO project team, the URS/CWC project team, and the Montana Department of Environmental Quality.

1.4 Mobilization

Following the preconstruction meeting, work areas will be secured and a central field office will be established. Equipment and materials necessary to complete the project will be moved to the facility and staged at predetermined locations within the facility. In addition to the field office, the following work areas will be established:

- Establishment of on-site electric and water service (as needed);
- Personnel decontamination areas;
- Temporary conveyance systems;
- Equipment lay down areas; and
- Demolition salvage staging and loading areas.

The work areas listed above, as well as, other tasks that will be conducted during the mobilization phase of this project are described in the following sections.

1.5 Personnel Decontamination Areas

Personnel decontamination areas will be established for each exclusion zone and work activities that may expose workers to unique safety hazards and/or hazardous levels of chemicals and waste materials. These requirements will be used to determine appropriate personnel protective equipment (PPE) that will be used in each of the separate plant areas during each phase of work. Required PPE, decontamination procedures and personnel decontamination equipment have been identified in the Health & Safety Plan.

1.6 Temporary Conveyance Systems For Surface Water

Existing collection trenches and sumps will be used to collect surface water during decon activities. The locations of these trenches and sumps will be confirmed and identified by the URS/CWC, utilizing existing project utility plans, during the pre-mobilization activities as well as throughout the completion of on-site work activities. During collection of surface water, this material will run through ASARCO's current WWT Waste Water Treatment facility (being run and operated by ASARCO). ASARCO will handle materials once it hits the WWT. ASARCO will be responsible for any required waste (water) treatment and disposal permits required on the project.

The conveyance systems used to collect project decon water will include, but not limited to those features generally located in the vicinity of Asarco's waste water treatment and the on-site car wash facilities. The waste water treatment plant at the East Helena Plant treats facility water and discharges the treated water under Asarco's MPDES permit. The sludges that collect in sumps, defined as waste water treatment units (40 CFR 260.10), are exempt from RCRA permitting. When generated by removal from the sumps, the sludges will be managed appropriately and, if hazardous, will be managed in accordance with applicable rules and regulations.

Asarco's current MPDES permit, March 2001 MPDES permit renewal application, and April 2007 update to its March 2001 MPDES permit renewal application (Department action pending) list Upper Lake and City of East Helena water as operations contributing flow to Asarco's waste water treatment plant effluent, both of which may be used for decon of project equipment. The MPDES permit allowed for the treatment of decon equipment wash water during plant operations. The MPDES permit provides for this same treatment during the cleaning and demolition activities.

1.7 Demolition Salvage Staging and Loading Areas

Several demolition salvage staging and loading areas will be established for cleaned material and equipment. These areas will be easily accessible to expedite loading and transport activities. Surface cover in these areas will be durable enough to withstand the storage and movement of heavy scrap material without breaking apart and creating difficulties when loading the material or impacting the areas.

1.8 Demobilization and Contract Close-Out

Following the completion of all field activities, the site will be cleared of temporary construction facilities as well as the disconnection and removal of temporary power sources. All equipment brought to the jobsite throughout the project will also be removed. A site walk will be conducted with the ASARCO Project Management Team at the completion of demobilization. This site walk will be used to receive closeout of construction activities or identify "punch list items" to be addressed. Following the completion of field

activities, URS/CWC will submit to ASARCO any documentation that had not been forwarded to ASARCO on a weekly basis.

2.0 HAZARDOUS MATERIALS REMOVAL AND HANDLING PROCEDURES

This section describes the procedures that URS/CWC will employ to remove and/or decontaminate those areas that have been impacted by hazardous substances (heavy metal laden dust, acids, etc.) and/or containing Universal Waste items. Universal waste (UW) includes the removal and packaging of Fluorescent Light Tubes, HID lamps, PCB and non-PCB ballasts, and mercury containing equipment from the 2008 Cleaning and Demolition Project. URS/CWC anticipates using the Direct Smelt Building or Shop Storage Building for the storage of containerized hazardous waste and Universal Wastes. If encountered during the Project, the storage of PCB and non-PCB ballasts and mercury containing equipment will occur at the same locations. Asarco will be responsible for inspection and proper management of these wastes.

As addressed in the ASARCO Project Specifications, URS/CWC will provide the personnel and equipment to perform the necessary waste removals prior to demolition. ASARCO has required that hazardous materials are to be addressed and that the facility will be free of appreciable hazardous materials prior to the initiation of any demolition activities.

2.1 Lead and Heavy Metal Dust and Debris Removal

Located within the ASARCO facility are areas that have been impacted by lead and other heavy metal dusts and debris, which were utilized and/or were a by-product in the manufacturing of lead bullion. The intent of the interior cleaning is to reduce the potential for fugitive dust emissions during demolition. URS/CWC will take precautions, as addressed in the Site-Specific Health & Safety Plan, when working with and handling heavy metal contaminated materials. The surface areas to be handled due to heavy metal dust and debris contamination will include those areas delineated on Sheet 3 of the Construction Drawings (Attachment A). In general, URS/CWC's method for addressing heavy metal dust/debris removal will consist of:

- Work Area preparation;
- Initial Dry Removal of Bulk Solids; and
- Moistening of Building Interiors for Dust Control.

Work area preparation will consist of delineating a work area that can be both easily contained and is considered a cohesive area unit with like contamination (i.e., Baghouse, Blast Furnace Flue, Monier Flue, etc.). The cleaning and demolition of the blast furnace flue and monier flue will be governed by the EPA approved 2008 Interim Measures Work Plan Addendum (May 2008). Once the work area has been defined, URS/CWC will begin the removal of bulk solids. The goal of this task will be to remove the gross, dry accumulation of contamination (lead, lead dust, lead debris, acid residues, etc.) at all accessible areas. This will be performed by personnel utilizing hand tools and a trailer mounted "Hurricane" vacuum system with HEPA filtration. Waste will be loaded via air tight chute into appropriate containers (i.e., double 6-mil mega bags, etc.) and hauled directly to the CAMU. This initial removal of the gross, dry accumulation of solids at ground level will ensure a more effective and more controlled method of demolition and overall dust control.

Upon completion of the gross debris removal at ground level, URS/CWC will initiate the pre-wetting and moistening of the building interiors. After review of the building interiors, URS/CWC has determined that accumulated dust on various horizontal surfaces within the interior presents a potential for airborne dust. The purpose of this operation will be to mitigate airborne dust generation during the above grade demolition operation. This pre-wetting activity will be accomplished through a combination of methods, including water hoses, water trucks, and misting systems. URS/CWC realizes that it is not feasible to remove all heavy metal laden dust from all surfaces and confined areas prior to demolition. URS/CWC will focus its efforts on mitigating the generation of airborne dust during the demolition and material handling operations.

URS/CWC will utilize the services of a subcontractor, IRS Environmental, to perform the removal of lead and heavy metal laden dust and debris from the subject structures. IRS Environmental has further procedures for this activity as delineated in their "Hazardous Material Abatement Plan" which is provided in Attachment C.

2.2 Catalyst Converter Vessel and Acid AST Decontamination

The Converter Vessel and various acid ASTs (if any) will require cleaning to prevent the generation of airborne dust or acid laden mists that could potentially be an eye, skin, and inhalation hazard. URS/CWC will initiate the decontamination process by removing all solid contents from the tanks and staging for eventual disposal in the CAMU. Catalyst from the Converter vessel will be removed via vacuum truck with personnel entering the vessel utilizing properly planned and coordinated confined space protocol. Catalyst removed during this task will be containerized and hauled directly to the CAMU.

Upon removal of contents from the other acid ASTs (if any), cleaning of the tanks will be conducted by utilizing a high pressure water source to triple-rinse the interior of the tanks. The free liquids and pumpable sludge will be removed from the tanks through a 2-inch or 3-inch vacuum hose into a DOT licensed vacuum truck or 55-gallon drums. Once the triple-rinsing of the tank is complete, rinsates generated from the cleaning process will also be placed into appropriate containers and staged accordingly for disposal by ASARCO. As a precautionary measure, URS/CWC will have available a small quantity of lime rock that can be utilized in the event of an acid release/spill. This lime rock will be used to neutralize any release and will facilitate the overall clean-up of such an event. Additionally, URS/CWC may utilize this lime rock as a means of neutralizing the pH of materials generated during the cleaning and washing process. This procedure could allow for placement of these liquids into the on-site waste water treatment system.

Waste water removed from the flushing of previously cleaned acid storage tanks will be directed into Asarco's waste water treatment plant. Asarco's MPDES permit allowed for the treatment of cleaning and washing of acid tanks during plant operations. The MPDES permit provides for this same treatment during the cleaning and demolition activities. Testing of pH and neutralization is not necessary since Asarco's waste water treatment plant is designed to treat low pH liquids. Asarco will manage wastes generated from the acid plant in accordance with those procedures currently described in Section 5 (Demolition Activities) and Section 6 (Dust Control Plan) of the Work Plan.

Upon the completion of the tank cleaning, the tank will be released for general demolition with the resulting metal being staged for salvage.

2.3 Stack Cleaning

URS performed the interior wash down of the three (3) concrete/brick chimney stacks (425' Blast Furnace Stack, 400' D&L Stack, and the 200' Acid Stack) in 2007. The work procedures can be found in the 2007 Cleaning and Demolition Work Plan. The methods in which the stack washing materials were managed are discussed in Asarco's 2007 quarterly and annual completion reports.

2.4 Removal of Oils from Site Equipment (If Discovered)

Located within the facility, miscellaneous equipment is present that utilizes hydraulic oil or other oils in their operating capacity. Upon assessing these units, personnel will clear the area of all obstructions. All electrical service will have been disconnected prior to this time. URS/CWC will locate and coordinate the equipment to remove the oils stored in the reservoir tank or unit itself. Once the reservoir is opened, personnel may utilize mechanical (metal or plastic) hand pumps or vacuum devices to facilitate oil removal. Hand pumps, if used, will pump the oil directly into 55-gallon drums. Drums will be located adjacent to the work area during oil transfer to reduce spillage. Once filled, the drum will be sealed and labeled with the type of substance and location. Absorbent will be available on-site during oil removal and transfer as a contingency in case of spillage. Used absorbent will be placed in a drum labeled "Oily Absorbent" or incorporated into an existing oily absorbent stream generated from general facility decontamination. URS/CWC will promptly clean up oil and grease spills to prevent contamination of storm water and/or run-off. URS/CWC anticipates using the Direct Smelt Building or Shop Storage Building for the storage of containerized hydraulic oil or other oils. Asarco will be responsible for inspection, labeling, and management of these materials.

2.5 Universal Wastes (If Discovered)

As observed throughout the facility, various Universal Waste (UW) items which although are not considered a hazardous waste, will require special handling and recycling or disposal by EPA and State regulations at a permitted and licensed treatment, storage, disposal facility. Hazardous waste and UW components may include the following items:

- Fluorescent Light Tubes;
- High Intensity Discharge (HID) Lamps;
- Light Ballast containing PCBs;
- Mercury Containing Equipment; and
- Refrigerants (CFCs).

Removal of Fluorescent Light Tubes and HID Bulbs

URS/CWC will ensure that all electrical systems have been deenergized, thus personnel can proceed with the removal of the fluorescent lights and HID bulbs without electrical issues. Once established, the plastic cover of the light fixture, if present, will be removed and placed on the floor, at which time the exposed fluorescent light tubes will be removed by hand and placed in a rubber/plastic container for temporary storage. URS/CWC will utilize rolling scaffolding, man lifts or ladders to support workers on single story floors. For ceilings that are of greater height, a motorized lift will be utilized to assist in retrieving light tubes and other lighting components.

The High Intensity Discharge (HID) bulbs will be removed in the same manner previously outlined for the fluorescent tubes. Removal of the HID bulbs will require the use of motorized boom-lifts in order for personnel to achieve accessing the lamp fixture at much greater heights. HID bulbs will be unscrewed from the lamp housing and placed in cardboard boxes or drums supplied by the receiving facility. The containers will be filled with the bulbs and as they become available, personnel will seal the box and place a label on the box indicating material type and quantity. All storage containers will be relocated to a designated temporary storage area. The fluorescent light bulbs and HID bulbs will be shipped off-site for disposal.

Handling of Non-PCB and PCB Ballasts

After removal of fluorescent light tubes, the protective ballast cover will be removed to access the light ballast for inspection. The inspection will be completed with the fixture in place. Inspection of the light ballast will include careful review of the ballast label to determine if the ballast contains PCBs. If the ballast is not marked "No PCBs" or the label is removed or unreadable, it shall be assumed that the ballast contains PCBs. If the ballast does not contain PCBs, as determined by this definitive visual inspection, the non-PCB ballast will be left in place for demolition.

During removal of the ballast, if any portion of the light fixture is impacted with PCB oil due to leaking, the portion of the impacted fixture may be decontaminated by scraping the oil from the ballast cover. Any generated residue or wiping clothes will be considered PCB contaminated and incorporated into the drummed ballast waste stream. Once the PCB ballasts have been removed and are staged in a central location, the PCB containing ballasts will be placed in 55-gallon drums for eventual off-site disposal.

Mercury Containing Equipment

Each identified piece of mercury containing equipment designated for removal will be located, isolated, and cleared of all obstructions. Disconnection of the isolated items will proceed utilizing all safety and standard removal procedures for the specific item. Procedures will include lockout/tagout of electrical feed to building or area, cutting electrical lines to the unit, and removing isolated item. As removal of like items proceed, thermostats, thermometers, ignitron tubes, barometers, etc. will be removed, the wires clipped and placed in a 5-gallon spill proof plastic containers containing several inches of absorbent media. This media will cushion the ampules during facility transportation as well as absorb any free-flowing mercury if ampules were to break or leak. In case of a spill or release, URS/CWC personnel involved in the removal and handling of mercury containing equipment will be given a Mercury Spill Response Kit. The mercury containing devices will be shipped off-site for disposal.

Refrigerants

The specific item containing Chlorofluorocarbons (CFC) (i.e., air conditioning units and chillers) will be located and accessed for recovery. The CFC containing equipment will be disconnected utilizing the proper safety and standard removal procedures and evacuated. Air conditioners and chillers will be disconnected from their power sources. URS/CWC will provide certified refrigerant recovery subcontractor to facilitate evacuation and recovery of the refrigerant. URS/CWC personnel will document on an internal waste removal log, the quantity in pounds of CFCs recovered from the various units. Once the unit is cleared, the unit will be tagged with an agreed upon colored tag indicating "CFCs Removed." The methods in which the majority of refrigerants (CFCs) located in the cleaning and demolition areas were managed are discussed in Asarco's 2007 quarterly and annual completion reports.

3.0 ASBESTOS ABATEMENT METHODS

Materials located within the facility considered for asbestos abatement include, but are not limited to: rope, tile, mastics, transite panels, window putty, roofing materials, metal panels, etc. URS/CWC will utilize the services of a subcontractor, IRS Environmental, to perform the asbestos abatement activities. Their work procedures and methods are described in their "Hazardous Materials Abatement Plan" which is included in Attachment C.

URS/CWC and its subcontractor, IRS Environmental, performed a majority of the Phase IV, Stage 1 and Stage 2 asbestos abatement activities in 2007. The remaining asbestos abatement activities to be performed in 2008 consist of the removal of asbestos containing siding/panels in the Acid Plant area. Due to the elevated location of and numerous pipe penetrations through these panels, URS/CWC and IRS Environmental will work cooperatively to remove these panels during the course of Acid Plant demolition activities. Special care and precaution will be taken during the demolition process to minimize damage to the panels.

If, during the course of 2008 demolition activities, additional, previously unknown asbestos is discovered, URS/CWC and IRS Environmental will utilize the methods and procedures as described in the "Hazardous Materials Abatement Plan."

4.0 UTILITY DISCONNECTS

Prior to the initiation of any fieldwork, existing plant utilities and process piping systems will be identified. These procedures will be conducted with URS/CWC survey personnel and the assistance of the designated ASARCO operations person. It will be necessary to lockout most of the utilities and process piping in all areas of the plant prior to cleaning and dismantling. URS/CWC management will determine what systems need to remain active to facilitate the removal of residual products, and cleaning and demolition activities in each of the plant areas.

A detailed description of utility systems lockout protocol is included in the Health and Safety Plan. Lockout procedures will generally include the following objectives:

- Lock-out (close, disconnect, plug, and/or blank) and tagging valves;
- Lock-out and tagging, or disconnection of electrical systems;
- Capping/plugging of storm water lines as necessary to complete work; and
- Documentation of utility caps on Owner supplied facility utility maps.

5.0 DEMOLITION ACTIVITIES

5.1 General

The demolition activities at the site require extensive experience to coordinate services and minimize migration of dust and debris. The demolition of a building can be achieved in a variety of manners depending on the type of structure, reasons for demolition, the proximity to the surrounding structures,

safety, and the requirements for salvage or resale. URS/CWC will use a sequence of demolition approach for the major building structure and will compile information from the onsite as-built drawings, and onsite inspections of the buildings to allow our operations and staff to formulate a sequence of demolition of each building to ensure safe working conditions. Typically, this approach involves the dismemberment of the building using breakers, shears, pulverizers, processors or cutting equipment. This technique is generally used on steel and concrete/masonry buildings (spans up to 150 feet) where large shears can cut various members and place the members or drag the members into a staging area where grapple equipment can stack and pile for salvage or further handling.

Our approach focuses on the removal of the bay-to-bay supports (columns and beams), and the flooring and roofing structures in a sequential, controlled manner. This removal approach is excellent when the project requires the salvage of building materials and when dust control requirements warrant a controlled demolition process. Salvage activities including loading, separation, etc. will continue concurrently with the demolition process.

As with every demolition project, the principle considerations are stability of the building structure and the safety of the working personnel and related areas within the collapse envelope of the structures. The following section outlines URS/CWC procedures:

5.2 Isolation Activities Before Demolition Of Structures

Before and/or concurrent with the abatement and removal of regulated wastes, URS/CWC will conduct isolation activities to create a physical separation of the 2008 cleaning and demolition areas from the surrounding structures, piping, items, that are to remain. This will be conducted in a variety of methods employing both excavators equipped with shear attachments and laborers with hand tools and cutting equipment. Prior to initiation of the isolation work, URS/CWC will perform an investigative site walk with ASARCO personnel to re-mark and re-designate the lines of separation between the demolition areas and surrounding areas to remain.

Piping, conduits, and structures that are accessible to an excavator will be selectively sheared at the marked isolation location. The member to be isolated will be cut in such a manner that it will fall away from areas to remain and be protected in place. As members are cut and removed, they will be placed behind the excavator for handling and staging accordingly. Certain piping, conduits, and structures that are not accessible to an excavator that require isolation will be removed by hand using man lifts to position workers with hand tools to cut members free using hand saws or torch cutting equipment. Components will be secured to a crane, forklift or bucket loader and lowered to the ground, or may be allowed to sag to the ground as supports are disconnected.

Upon completion of the isolation task, a physical separation will exist that will ensure areas to remain are protected in place and that the demolition activities can progress unimpeded. Inspection of operations will be conducted by both the Site Superintendent to ensure that exclusion zones are established and that safe working conditions exist at all times. Regular daily safety meetings will be conducted by each foreman to discuss methods, exclusion zones and safety practices. Materials are to be removed from the working area on a daily basis to provide safe working conditions for the men and equipment.

5.3 Demolition of Buildings and Structures

Prior to the above grade structural demolition, the following items will be confirmed complete:

- Decontamination/Cleaning;
- Universal Waste removal; and
- Required interior and exterior asbestos abatement operations.

Steel Structure Demolition

The approach to the building demolition is to use excavators (track-mounted) equipped with specialty attachments (such as shears, breakers and grapples) to structurally remove, bay by bay, the various structural members. The sequence approach is as follows:

- Each structure will be demolished using excavators with specialized attachments. Each truss frame structure between bays will be lowered and/or dropped to the ground by separating the portions of the tension members on the bottom chord to cause the truss to sag in between two bays.
- The excavator will then separate the remaining tension members of the truss to allow one end of the main truss to become separated from the supporting column.
- The other end (still connected) of the truss will be disconnected. The remaining roof transverse trusses, connecting main truss to main truss shall be removed to allow placement of main truss behind the equipment for salvage. The remaining portion of the roof attached to the next bay section will be cut allowing for removal. The excavator will then drag the roof section behind for stockpiling and separation. This process is repeated for each of the numerous bays within each of the above referenced buildings.
- Steel columns will be cut with a shear at the base, and allowed to fall to the ground.

All materials will be staged behind the working areas of the primary excavators, where they will be prepared by additional shears before they are loaded into dump trucks and hauled to the steel staging area just to the north of the Coverall Buildings. Materials will be continuously removed to allow other operations to proceed.

Concrete/Masonry Structure Demolition

A 100,000 lb excavator (or larger), equipped with a breaker, and a track loader will be utilized for the complete above grade concrete demolition operations of the various concrete and masonry structures. The exterior walls are constructed of either a concrete block material or a brick material. Starting at one end, URS/CWC will commence breaking from the top of the wall down from column to column. Once complete with the exterior wall at the end, URS/CWC will commence the removal of the concrete upper floor slabs within the same constraints as the wall. This process is limited to the first interior column line. Demolition of the elevated floor slab and walls will be completed in a top down approach for each individual column line. URS/CWC will break the closest interior columns under the roofs and floor, allowing the individual floor to sag. URS/CWC will work into the building, breaking the sagged slabs and allowing the debris to fall to the ground. As floor slabs are removed and area is created in front of the equipment, URS/CWC will continue to break interior columns from the top down.

Once complete for that column line, URS will repeat the same procedure for the remaining column lines. Utilizing a track loader, the broken concrete debris will be removed and hauled directly to the CAMU.

Stack Demolition

Upon completion of the stack cleaning as described above, URS/CWC, and its subcontractor (Dykon), will commence with the demolition/felling of the stacks by explosives. Prior to Dykon arrival, URS/CWC will remove all flues and equipment servicing the stacks. This will be done with the use of heavy equipment and personnel isolating the stacks as described above.

Upon Dykons arrival, ASARCO, URS/CWC, and Dykon will determine the best area for each individual stack to land. This will be open ground area, mid-point between the areas remaining. A transit will be placed at this point to mark the centerline of the stack. From this point, Dykon will measure $\frac{1}{4}$ of the circumference in both directions to determine the exact centerline of rotation. Dykon will "layout" the stack according to an engineering analysis and drawing. A transit will be used so that a precision line of fall can be determined. To ensure that enough material will be removed on the fall side, three (3) rows of holes will be drilled on 18" to 22" centers. Past the line of rotation, a triangle area will be outlined by line drilling a series of holes. This area will be removed to insure the stack hinges on a single line of holes that will be drilled around the back of the stack. There will also be a window removed on the fall side of the stack creating two columns that the URS/CWC will drill with three lines of $1\frac{3}{4}$ " holes each.

It is also necessary to relieve the tension on the hinge side of the stack once the explosives are detonated. This can be accomplished by two methods. Either URS/CWC will drill an additional line of $1\frac{3}{4}$ " holes circumnavigating the opposite side of the stack, which will be loaded and detonated with the blast, or it is acceptable to chip the concrete away enough to expose the rebar on both interior and exterior mats to torch cut it. In either case, a three-foot area on both sides of the stack will be left untouched to provide lateral stability for the felling of the stack. A test blast will then be conducted on the stack to verify that a sufficient quantity of explosives is being used for the demolition. Several holes in the hinge area will be loaded with various quantities of explosives, covered with steel plates, shot, and reviewed to determine the results. Once the debris and reinforcing steel has been removed, a second test blast will be performed on the opposite hinge and the center hole, adjusting the explosive ratio as necessary. URS/CWC may utilize an excavator with hydraulic breaker to remove the remaining portions of concrete from the other stacks.

A few days prior to the blast, a local explosive supplier contractor will deliver the explosives to the site by a vehicle that meets all the local explosive haulage requirements. The explosives will be guarded onsite for the duration of the production loading. Dykon will then commence with the production loading of the stacks after the test blast. After loading is completed, URS/CWC will provide and place two layers of 10 oz geotech and two layers chain link fence or sufficient steel around the stack. This will prevent debris and flyrock from escaping the immediate area.

The surrounding structures will be protected as needed, based on their distance from the structure. All windows, doors, or equipment in the immediate vicinity should be protected from both shrapnel and dust invasion, as necessary. A pre-blast survey will be conducted by an independent firm to verify that the surrounding structures aren't affected by the blast. Seismographs will be placed at various locations surrounding the blast sight to verify that blast vibration does not exceed a maximum value. At a 500' radius from the structure the estimated peak particle velocity should be less than 0.25 inches/ sec.

The initiation system will be a non-electric system. This system uses shock tube and detonating cord to transmit the signal to the blasting caps instead of electricity. The non-electric system provides a better safety factor than the electric system of initiation. Premature detonation as a result of lightning and radio interference is negated with this system.

A security area will be established between URS/CWC and the local police department. This plan will indicate safe viewing locations for the media, general public, and personnel involved with the demolition. Prior to the blast, the area around the stack will be cordoned off as determined by all parties concerned. This area will be rechecked while the final wiring is completed and verified for continuity. When all is ready, a series of sirens will be sounded and the blast set off. Following demolition, Dykon's personnel will check the area and an all clear signal will be given before the cleanup process can begin.

Utilizing a track loader, the broken concrete debris will be removed and hauled directly to the CAMU. The Department will be notified within 72 hours prior to stack demolition. The Department will be provided with the plan that indicates the safe viewing locations for the media, general public and personnel involved with the demolition.

5.4 Stockpiling

As steel structure and concrete demolition is progressing, material will be hauled and stockpiled in the designated Material Staging and Processing areas located within the demolition area footprints. At these locations both general demolition debris and salvageable metal materials will be sized to meet the requirements of the final disposition location. Once general demolition debris has been segregated and sized, URS/CWC will load and transport the material directly to the CAMU. With regards to salvageable metals, URS/CWC will size the material to its requirements and stage the materials for eventual loading into railcars and/or trucks for transport to the recycling facility.

5.5 Debris Transportation

URS/CWC understands the critical nature of loading and transporting of waste debris from demolition areas to the CAMU. Therefore, URS/CWC will take a proactive approach to ensure that the transportation of waste debris does not generate dust or spread waste debris outside the limits of the loading area and the final CAMU placement area. For all demolition debris, as further described below, URS/CWC will utilize water trucks and misting systems to keep debris moist during the demolition and loading process. These operations will minimize airborne dust during the loading operation and be the first step in prevention during transportation.

URS/CWC anticipates utilizing 25-35 ton rock trucks, side dump trucks, and/or 10-wheel dump trucks, or a combination thereof, to haul the material to the CAMU. All trucks will be equipped with sealed tail gates that will be closed during times of hauling to ensure that debris is not released outside the limits of the loading and dumping area. In order to further mitigate dust generation during hauling operations, URS will construct a truck moistening station at the exit of the ASARCO site over to the CAMU site. This station will consist of a scaffolding platform on which personnel will mist water on the loaded debris as a final step before it travels outside the property fence line and across the County road. The spray will add a final moisture barrier/binder to the debris for the short distance to the CAMU. Transport vehicles will be limited

to a maximum 10 miles per hour while both on-site and during transport. Limiting speeds will prevent dust from become airborne during transport and will prevent the kick-up of dust due to rolling tire action.

Transport of waste on-site will follow prescribed paths, which will be determined during the course of demolition. Due to the changing nature of the site as demolition of structures progress, haul routes will require modification as site conditions dictate. However, once defined, these haul routes will be enforced to create dedicated routes that can be maintained to mitigate dust and debris migration, and prevent any potential spread of contamination. Maintenance of haul routes will be conducted through routine daily inspection to ensure that debris is not being released.

Haul routes will be lightly wet with a water truck on a frequent basis throughout any given day to prevent the generation of dust due to vehicular traffic. The material generated from the cleaning and demolition project must be managed to ensure unacceptable levels of dust are not generated. Asarco's Air Quality Permits requires the use of dust suppression methods, including the use of water, to meet this obligation. The use of water as a dust suppression will be managed to minimize infiltration. The temperatures and relative humidity experienced during the construction season will promote evaporation of the water used for dust suppression rather than infiltration. In accordance with the CAMU Design Analysis Report, street sweepers will be used on plant site and waste transport haul roads. Water dust suppression will augment the use of street sweepers as the overall dust suppression program. URS/CWC will utilize the services of a street sweeper to clean the haul routes of accumulated debris and dust. This debris and dust sweepings will be dumped on-site and handled as demolition debris for eventual placement into the CAMU. The CAMU Design Analysis Report (including the May 22, 2008 addendum) will govern the methods for placing the material within the CAMU cell.

5.6 Plug and Abandon Underground Piping

Underground piping exists within the footprint in which cleaning and demolition will take place. The underground piping will be plugged and sealed in place. The plug and abandonment of underground piping are governed by the procedures outlined in the EPA approved Interim Measures Work Plan Addendum (May 2008).

5.7 Capping of Demolished Areas

Asarco intends to backfill and install temporary caps in areas where cleaning and demolition has occurred and where exposed soils are present.

Upon completion of the cleaning and demolition operations in the identified building areas, URS/CWC will remove all debris and items from the slab that could possibly penetrate the subject geotextile and geomembrane. URS/CWC will utilize the existing on-site fumed slag as fill material over the identified areas. This fumed slag will be placed and rough graded to create the positive drainage required per the Construction Document Drawings. The fumed slag has been used as a grading material at the plant site in the past and possesses good physical characteristics for fill or sub-foundation uses (granular material and compacts wells). Although fumed slag contains elevated total metal concentrations, the metals are bound in a silicate-iron matrix with characteristics of low metal leachability. The potential for metal migration from the fumed slag is low. In response to EPA's July 6, 2006 comments, Asarco provided the rationale for using fumed slag for backfilling purposes, including study results derived from the RCRA Consent Decree

investigations. The slag-related investigative results contained in the Current Condition Release Assessment (CC/RA, January 1999) and qualitative analyses of fumed slag (May 2001) are attached as Appendix B. In April 2005, Montana Department of Environmental Quality representatives collected fumed slag samples from the East Helena Plant to assess the potential environmental impacts from its use as an iron substitute within the cement manufacturing industry. A copy of the April 2005 fumed slag sampling event results is attached as Appendix B. A July 2006 Department Environmental Impact Statement (EIS) contains additional slag related information.

The geotextile and geomembrane will be laid, sewn, and secured as detailed. Additionally, sandbags will be placed intermittently within the center liner area to prevent the liner from being picked up by wind uplift or other forces. This will be done in sufficient quantity to ensure the liner stays in place. As an added preventative measure, URS/CWC will utilize sandbags made of UV Resistant 9-mil PE, which will provide superior UV resistance (compared to standard plastic woven sandbags) to prevent breakdown by sunlight.

URS/CWC will utilize the services of a subcontractor, Northwest Lining & Geotextile Products, Inc., for the installation of the temporary demolition caps. Complete details for the geotextile, geomembrane, and liner attachment to be utilized are contained in Attachment D of this Work Plan.

5.8 Equipment

A preliminary equipment list is provided below for this project. Equipment of similar size and weight by an alternate manufacturer will be substituted or added if necessary during the course of the project. Attachments used with the below listed Excavators may be interchanged as required to meet the specific requirements of the structure on which they are utilized. Therefore, each excavator may attach a bucket in place of the breaker for load out in particular procedures. Attached is a list of proposed equipment types and sizes:

- 75,000 – 175,000 LB. sized Excavators with various attachments;
- Rubber Tired Loaders with a 4 cy – 7 cy Bucket Capacity;
- Track Loaders with a 1.25 cy – 3.40 cy Bucket Capacity;
- Skid Steer Loaders;
- 2000 – 3500 Gallon Water Trucks;
- 25-40 Ton Rock Trucks;
- 10-Wheel Dump Trucks;
- Scrappers;
- Motor Graders; and
- Misc. Equipment (Man Lifts, Air Compressors, Torches, etc.).

5.9 Storm Water Pollution Prevention Plan

URS understands and appreciates the importance of the SWPPP due to the present concerns and conditions of the ASARCO facility. URS will utilize Best Management Practices (BMPs) for various construction activities. From the existing SWPPP, applicable information, such as management practices for the hazardous material storage areas, will be incorporated into URS' Best Management Practices. Other material handling practices related specifically to the decontamination and demolition activities will be addressed. Management practices for cross-contamination control will be addressed, such as avoiding

spills from construction vehicles during hauling, loading, servicing, and fueling and controlling contaminated soil erosion. Changes to the storm drainage system due to demolition will be addressed as the structures are demolished and the site conditions change.

Standard erosion control measures will also be utilized, including controlling dust, providing straw bales around storm drain inlets, placing sand-bags at critical perimeter locations, and avoiding off-site tracking of debris from vehicles. Provisions to avoid ponding and maintain excavations free of storm water runoff will be addressed. Typically, this will involve filling these locations prior to storms. Measures for erosion control will be added as the project progresses.

Inspection of the erosion control measures will be made prior to, during, and after storms to evaluate the adequacy of these measures and to manage corrections as necessary. Documentation of the inspection and correction activities will be maintained, as required. Generally, the inspection and documentation will be done by the Project Manager / Engineer. Copies of the documentation will be forwarded to ASARCO for review and records.

6.0 DUST CONTROL PLAN

The general requirements of this plan are to provide adequate resources to control dust and to detail the means and methods that will be utilized to implement dust control measures during the cleaning and demolition in order to support scheduled activities/operations within the ASARCO facility. URS/CWC's dust control measures are designed to control the emission of visible fugitive nuisance dust. These controls will be accomplished through the use of administrative, engineering, and physical controls that will include, but not be limited to the following:

- Wetting surfaces with water;
- Application of dust suppressants or encapsulates, where applicable;
- Minimizing soil, road, and surface disturbances;
- Minimize dusting exposure periods and wind erosion before dust-abatement measures are applied;
- Curtailing of work activities during high wind conditions (over 15 MPH average hourly rate);
- Controlling vehicle/equipment speeds (10 MPH maximum);
- Restricting traffic to designated roads/corridors; and
- Equipment Selection.

URS/CWC considers the mitigation of airborne dust generation to be a priority. Throughout the project, URS/CWC will take all necessary steps to effectively control dust in the working area during demolition operations. As previously mentioned, URS/CWC will remove at ground level and at all accessible areas all gross debris accumulation that could be a source of airborne dust. Furthermore, URS/CWC will institute a program of pre-wetting and moistening building interiors and horizontal surfaces where dust has accumulated. This pre-wetting of the structure interiors will limit the ability of remaining dust to become airborne during the demolition process. As the structures are demolished, the dust will be allowed to fall to the ground where it can be gathered, containerized appropriately, and properly managed.

6.1 Application With Water During Demolition

The use of water will be the main source for dust control. URS/CWC will keep all work areas (including roads, access points) within the facility, wet during work activities. This will be accomplished by using 2,000-gallon water trucks. Each water truck will be equipped with spray-bars for wetting haul and access roads; water cannons and necessary hoses, valves, and fittings will be used to provide spray water for dust control where needed in remote areas where a water truck can not be utilized.

Furthermore, during the life of the project water truck(s) will be available during the actual demolition of the above grade steel and concrete structures. Localized fine water spray pointed to the source of demolition (and therefore dust source) reduces dust particles to become airborne. Additionally, URS will utilize a Dust Boss™ water misting system. The Dust Boss™ is a fully automatic, oscillating ducted fan with a high pressure misting system that creates a high performance dust barrier. Boss™ uses a high pressure misting system to create an ultrafine mist that attracts dust and drives the dust particles to the ground. During structure demolition, this equipment will be pre-positioned in an area that will ensure the generated dust barrier is effective. To minimize water run-off, both the water truck and Dust Boss™ water supply will be used only if necessary.

6.2 Dust Control During Stack Demolition

With regards to the felling of the stacks, all stack interior cleaning has been performed to remove all loose dust and debris that could be a potential dust source. Dust generated from the felling process will come from two primary sources: (1) from existing soil and dust particles at grade; and (2) from the fracturing of stack concrete as it impacts the ground. Dust will not be generated from the interior sections of the stacks since cleaning of these structures has previously taken place. The cleaning of the interior sections of the stacks is discussed in Asarco's 2007 quarterly and annual completion reports. To minimize the amount of dust generated from at grade soil, URS/CWC will utilize water trucks to wet the ground of anticipated stack landing zone. This will be performed on the day of the blast, based on the landing zone analysis of the blasting subcontractor. With regards to the fracturing of stack concrete as it impacts the ground, URS/CWC will utilize several Dust Boss™ water misting systems. These systems will be positioned adjacent to the landing zone of the stack to be felled. They will be turned on prior to the actual felling of the stack to create curtain of water mist particles around the impact area, thereby, minimizing generation of airborne dust. At all times during the stack felling process, the minimization of dust will be given top priority.

6.3 Dust Control During Loading and Debris Transportation

During loading, unloading, and material transfer operations, URS/CWC will minimize material drop heights to reduce emission of fugitive dust. During loading of demolition debris, additional spray water will be utilized to control fugitive dust emissions from this operation. After demolition debris is loaded into the truck beds, URS/CWC will then moisten the debris payload down prior to the vehicle leaving the loading areas.

As described above, during debris transportation, URS/CWC will construct a truck moistening station at the exit of the ASARCO site over to the CAMU site. This station will consist of a scaffolding platform on which personnel will mist water on the loaded debris as a final step before it travels outside the property fence line and across the County road. The spray will add a final moisture barrier/binder to the debris for the

short distance to the CAMU. Transport vehicles will be limited to a maximum 10 miles per hour while both on-site and during transport. Limiting speeds will prevent dust from become airborne during transport and will prevent the kick-up of dust due to rolling tire action.

6.4 Dust Suppressant

The primary dust control measure to be used will be water. However, the application of an accepted dust suppressant dispersed from the water trucks or special equipment as a dust suppressant may be required during periods of time that the application of water alone is inadequate for dust control. Dust suppressant product information and MSDSs will be submitted for approval prior to usage and/or application.

6.5 Area Control

URS/CWC will use specific loading areas for each decontamination/demolition removal location to minimize disturbances and control material transfer operations. During the demolition of each structure, URS/CWC will designate a staging and loading area directly adjacent to each structure. Often this area will be within the footprint of the structure being demolished. This staging and loading area, specific to each structure, will be kept constant and will be maintained to control the migration of dust and debris from moving material unnecessarily.

6.6 Water Source

URS/CWC will utilize the exiting the ASARCO provided fill station, adjacent to Upper Lake, as the source of non-potable water to be utilized for dust suppression operations. The fill station water source used for dust suppression is Upper Lake.

6.7 Field Quality Control

URS/CWC Project Staff (i.e., Project Superintendent, Foremen, H&SP) will inspect work areas daily to assess the need for implementation (or additional implementation) of dust control measures.

6.8 Overall Dust Control Application

URS/CWC will control fugitive dust emissions by using the following overall methods:

- Provide dust suppression (water) before, during, and after demolition of a structure, provided it is safe to do so.
- In cases where structures are to be dropped (stack demolition, elevated structures), URS/CWC will moisten the targeted drop area prior to the demolition of the structure.
- Provide dust control during material sizing and loading operations.
- Control material drop heights during loading, unloading and material transfer operations.
- Minimize and control material handling operations.
- On-site vehicular traffic control and haul road maintenance
- If necessary, URS/CWC will apply other approved methods for control of dust during specific procedures.

7.0 WASTE MANAGEMENT PLAN

Prior to and during completion of the 2008 Cleaning & Demolition and CAMU Project, URS/CWC will utilize this Waste Management Plan for the coordination and off-site disposal of the various waste streams to be generated during the decontamination and demolition activities. This plan has been developed to provide guidance, direction and procedures for managing the handling and disposal of hazardous waste solid and liquid waste, as well as non-hazardous wastes, generated as a result of the site cleaning, asbestos abatement, and demolition of the facilities at the East Helena facility. This plan will describe the responsibilities and procedures to be implemented by URS/CWC for the control and disposition of waste at the site.

7.1 Waste Scenarios

During the cleaning and demolition of the 2008 areas, it is expected that a variety of wastes will be generated and that the anticipated waste materials include, but are not limited to, the following categories:

- Asbestos Containing Materials;
- Heavy Metal Impacted Solids; and
- Demolition Debris.

The compounds that are included in these categories may occur separately or in combination.

7.2 Description of Solid Waste Disposal Options

For the purposes of disposal disposition, waste generated during the site activities will be subject to the following disposal options:

- Clean steel, tin, and non-ferrous materials for off-site recycling;
- All other solid waste, whether non-hazardous or hazardous for disposal in the CAMU;
- Friable and Non-Friable Asbestos Containing Waste for disposal in the CAMU;
- Personal Protective Equipment for off-site disposal by ASARCO; and
- Liquid waste for recycling or off-site disposal by ASARCO.

Asarco does not anticipate encountering any non-CAMU eligible wastes that other than those previously discussed in the Work Plan. Non-CAMU eligible waste will be managed in accordance with applicable rules and regulations.

7.3 Management of Non-CAMU Waste Streams

During the cleaning and demolition activities, URS/CWC shall containerize and store all hazardous and universal wastes generated as part of the work. URS/CWC shall use containers made of or lined with materials, which will not react with, and are otherwise compatible with, the hazardous waste to be transferred or stored, so that the ability of the container to contain the waste is not impaired.

If a container holding hazardous waste is not in good condition (e.g. severe rusting, apparent structural defects), or if it begins to leak, URS/CWC shall immediately transfer the hazardous waste from the

container to a container that is in good condition. URS/CWC shall inspect areas used for hazardous waste storage or transfer at least weekly for leaking containers or aboveground tanks, for deterioration of containers, tanks and the containment systems caused by corrosion. At the current time, URS/CWC anticipates utilizing the Direct Smelt Building or Shop Storage Building for the storage of containerized hazardous and Universal wastes.

Incompatible wastes and materials shall not be placed in the same container or aboveground tank. URS/CWC will handle and manage incompatible waste in such a manner that prevents violent reactions, generation of uncontrolled fumes, mists, gases and dusts, production of flammable fumes or gases and damage to the integrity of the waste container.

Hazardous waste shall not be placed in an unwashed container that previously held an incompatible waste or material. A container holding a hazardous waste that is incompatible with any waste or other materials transferred or stored nearby in other containers, piles, open tanks, or surface impoundments shall be separated from the other material.

URS/CWC shall store all hazardous waste in containers suitable for transport in accordance with 49 CFR Parts 170 through 179 or the requirements of the transporter, whichever is more stringent. No waste shall be transferred or stored in a manner which may rupture the container or cause it to leak.

7.4 Labeling of Waste

Proper marking and labeling shall be applied by URS/CWC for all hazardous and non-hazardous waste at the time the waste is placed in the container. Waste that is stored in bulk shall be posted with a sign that bears an appropriate waste label as well as the information required for waste area signs as applicable.

During decontamination activities or as discovered, URS/CWC may encounter waste streams that are placed into containers that are either previously unidentified or the exact waste characterization (i.e., Haz or Non-Haz) is unknown. For those instances, URS/CWC will label the container with a "Non-Classified Waste Material; Laboratory Analysis in Progress" label. This label will identify the material as an uncharacterized waste stream. URS/CWC will indicate on the label where the containerized material came from and if a reasonable amount of information is available, what the suspected waste stream is. An accumulation date will be added to the label. The waste determination and accumulation of wastes will be managed in accordance with applicable rules and regulations. Asarco will be the generator and will be responsible for the management of the waste.

7.5 Management of CAMU Approved Waste

Once the CAMU is ready to accept material, URS/CWC will begin the loading and transportation of stockpiled waste from the various storage areas into the CAMU. General demolition waste will be loaded with track or rubber-tired loaders and transported via rock trucks in the same manner as that for general demolition operations. Friable asbestos containing waste, that is wrapped and contained, will be loaded, transported, and placed in the CAMU cell in such a manner that the integrity of the wrapping is not breached. At no time will friable material be exposed to the environment. Non-friable asbestos waste that is placed in the CAMU will be loaded as described above for general demolition debris. Due to the impacted nature of the CAMU waste, including both asbestos and lead containing waste, URS/CWC will

strictly enforce the dust control measures as described above. The placement of waste into the CAMU will be governed by the specifications set forth in the approved CAMU Design Analysis Report (including the May 22, 2008 addendum).

7.6 Waste Management Quality Control

Waste management quality control will be accomplished through the use of administrative, engineering, and physical controls that will include, but not be limited to the following:

- Routine inspections of waste storage areas;
- Curtailing of work activities during high wind conditions (over 15 MPH s average hourly rate);
- Curtailing of waste handling and transport during rain events with enough volume to create run-off;
- Pre-identification and handling of waste requiring special management; and
- Decontamination of equipment used to handle waste.

Inspections

URS/CWC shall implement inspection procedures to address potential deficiencies related to the waste storage areas. URS/CWC shall conduct, at least weekly, inspections of the areas designated for container storage, or transfer. URS/CWC shall inspect the area for evidence of deterioration of containers and secondary containment areas. Additionally, inspection of container labeling and accumulation dates will be completed to ensure that all containers are properly and legibly labeled and that no containers will or are close to exceeding the on-site storage date. URS/CWC will inspect containers and storage areas to ensure that they are not, have not, and will not be susceptible to any weather event that could cause release of a hazardous waste stream onto the site or into the storm water system.

Work Stoppage

URS/CWC shall halt work when weather conditions are such that the spread of contaminated dust and debris is likely. These conditions typically exist when there is excessive wind and/or rain. Therefore, if wind with 15 MPH average hourly rate or more evolve, URS/CWC will halt the handling of waste to prevent dust and debris from becoming airborne due to the waste management process. Furthermore, if a rain event begins, URS/CWC personnel will evaluate the site conditions. If the rain is such that no run-off is occurring, work activities will proceed uninhibited. In the event that the rain is of such volume that run-off is beginning to occur and the work activities in progress (i.e., dust cleaning, demolition of a contaminated area) could create a contaminated run-off, work will cease until such time that a run-off potential is not present. URS/CWC will evaluate these conditions with ASARCO representatives.

Special Waste Handling and Segregation

Prior to demolition activities, URS/CWC will ensure that all waste requiring special handling have been removed from the structures to be demolished. Special wastes shall consist of asbestos containing wastes, universal waste, and liquid wastes. Universal and liquid wastes will have removed the structures, handled, and stored as Non-CAMU wastes defined above. Asbestos containing waste that will be placed in the CAMU will be segregated as it is abated.

The asbestos siding will be transported and placed in the CAMU similarly to the asbestos that is currently staged and stored in the Direct Smelter Building. As a non-friable asbestos, the siding will be stacked as neatly as possible, placed on a forklift, and transported to the CAMU. There it will be placed into the

CAMU in the location designated for asbestos containing material. Section 7.5 of the Work Plan further describes the management of asbestos containing material.

Decontamination of Equipment

URS/CWC will provide for the decontamination of equipment used in the handling and/or transport of demolition debris prior to the equipment leaving the site, or moving from a demolition zone to an area considered clean. URS/CWC will establish a decontamination pad, in an area agreed with and approved by ASARCO. This decontamination pad may change location dependent upon demolition activities and the evolution of the project site. This decontamination pad will be on concrete slab suitable for placement of heavy equipment.

Decontamination will consist of one or a combination of the following: brushing, vacuuming, or washing methods. The goal of the decontamination is to remove heavy metal laden bearing dust and debris from the areas of the equipment that came into contact with this waste. Upon completion of the decon activity, any removed dust and debris will be hauled into the CAMU.

Equipment that has been decontaminated will be inspected upon completion to ensure the adequacy of the process and to document the process to ensure quality control.

ATTACHMENT A

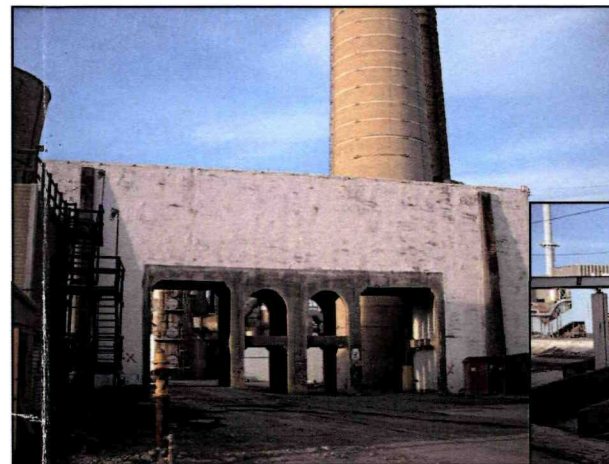
CONSTRUCTION DOCUMENT DRAWINGS



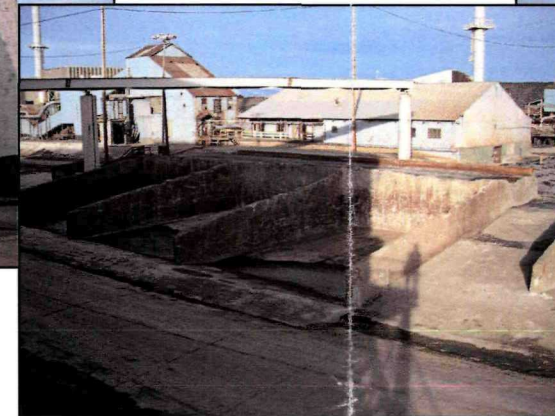
ASARCO LLC EAST HELENA PLANT

2008 CLEANING & DEMOLITION PROJECT

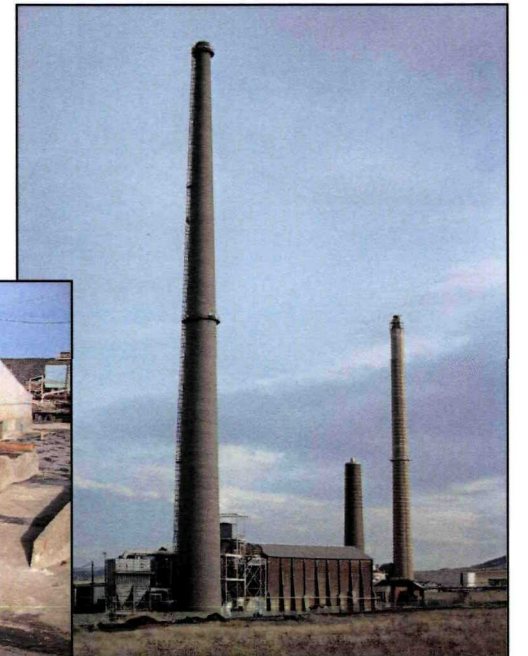
MAY 2008



BLAST FLUE UNDERPASS



CRUSHING/SAMPLE MILL AREA



THREE STACKS AND BAGHOUSE

LEGEND

- 2008 DEMOLITION
- 2007 AND PRIOR DEMOLITION



- DETAIL NUMBER
- PAGE ON WHICH DETAIL IS SHOWN

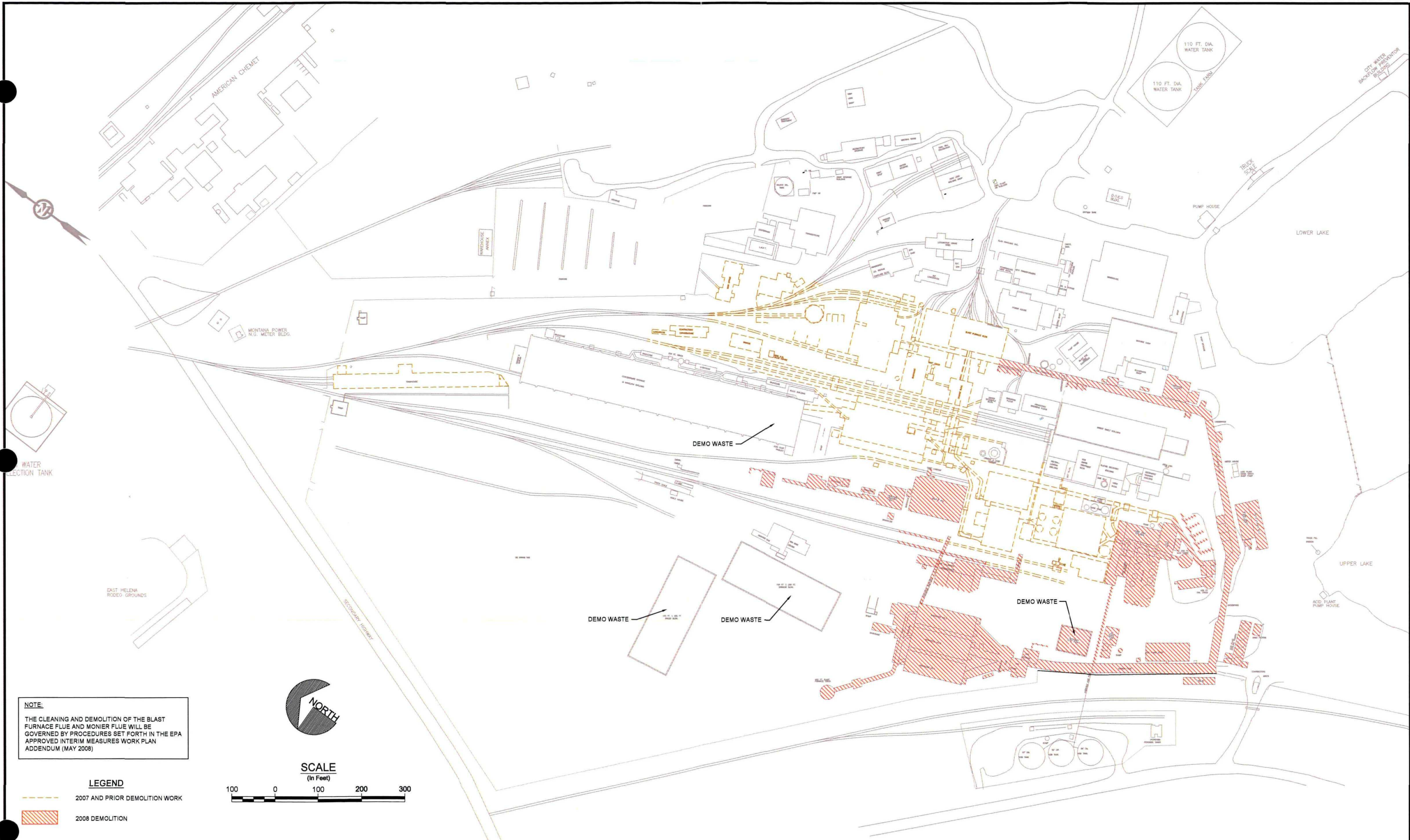
ABBREVIATIONS

- B.F. BLAST FURNACE
- BLDG. BUILDING
- CONC. CONCRETE
- CONV. CONVEYOR
- CY CUBIC YARDS
- Ø DIAMETER
- EL., ELEV. ELEVATION
- EX., EXIST. EXISTING
- FCE. FURNACE
- I.E. INVERT ELEVATION
- LF. LINEAL FOOT
- LIQ. LIQUID
- M.C.C. MOTOR CONTROL CENTER
- MISC. MISCELLANEOUS
- MPC. NORTHWEST ENERGY
- MW. MONITORING WELL
- N.G. NATURAL GAS
- OC. ON CENTER
- PB. LEAD BEARING MATERIAL
- R, RAD. RADIUS
- SCH. SCHED. SCHEDULE
- SY. SQUARE YARDS
- TYP. TYPICAL
- V. VERTICAL
- W, WTR. WATER
- W/ WITH

DRAWING LIST

DWG. NO.	TITLE
GENERAL SHEETS	
1	DRAWING INDEX & SITE VICINITY MAP
2	SITE PLOT PLAN
3	WASTE LOCATION MAP
4	ASBESTOS SURVEY LOCATION MAP
5	ACTIVE UTILITIES
6	UNDERGROUND UTILITIES ABANDONED
7	UNDERGROUND UTILITIES TO BE FLOW FILLED
2008 DEMOLITION PLAN SHEETS	
8	2008 DEMOLITION - PLAN
9	2008 DEMOLITION - STACK AND BAGHOUSE AREA
10	2008 DEMOLITION - MONIER FLUE AND ACID PLANT AREA
11	2008 DEMOLITION - CRUSHING AND SAMPLE MILL AREA
12	2008 DEMOLITION - BLAST FURNACE FLUE AREA
TEMPORARY CAP PLAN SHEETS	
13	2008 COVER SYSTEM AND INTERIM CAP - PLAN
14	DETAILS

REVISIONS	NO	BY	DATE	DESCRIPTION	REVISIONS	NO	BY	DATE	DESCRIPTION	SCALE VERIFICATION BAR IS ONE INCH ON ORIGINAL DRAWING 0 1 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	Project No.: 7054 DRAWN BY SDP 1/17/07 CHECKED BY MWR 1/23/07 APPROVED BY MJO 1/24/07 SCALE: AS NOTED	<div>Hydrometrics, Inc.</div> <div>Consulting Scientists and Engineers</div> <div>Helena, Montana 59601</div> <div>9000 Broadway Avenue</div> <div>(408) 443-4790</div>		ASARCO LLC - EAST HELENA PLANT 2008 CLEANING & DEMOLITION PROJECT		DRAWING FILE NUMBER	
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	DRAWING INDEX & SITE VICINITY MAP		AUTOCAD 2004 DRAWING (DWG)														
			SHEET NUMBER REV														
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NOTE:
THE CLEANING AND DEMOLITION OF THE BLAST FURNACE FLUE AND MONIER FLUE WILL BE GOVERNED BY PROCEDURES SET FORTH IN THE EPA APPROVED INTERIM MEASURES WORK PLAN ADDENDUM (MAY 2008)

LEGEND

- 2007 AND PRIOR DEMOLITION WORK
- 2008 DEMOLITION

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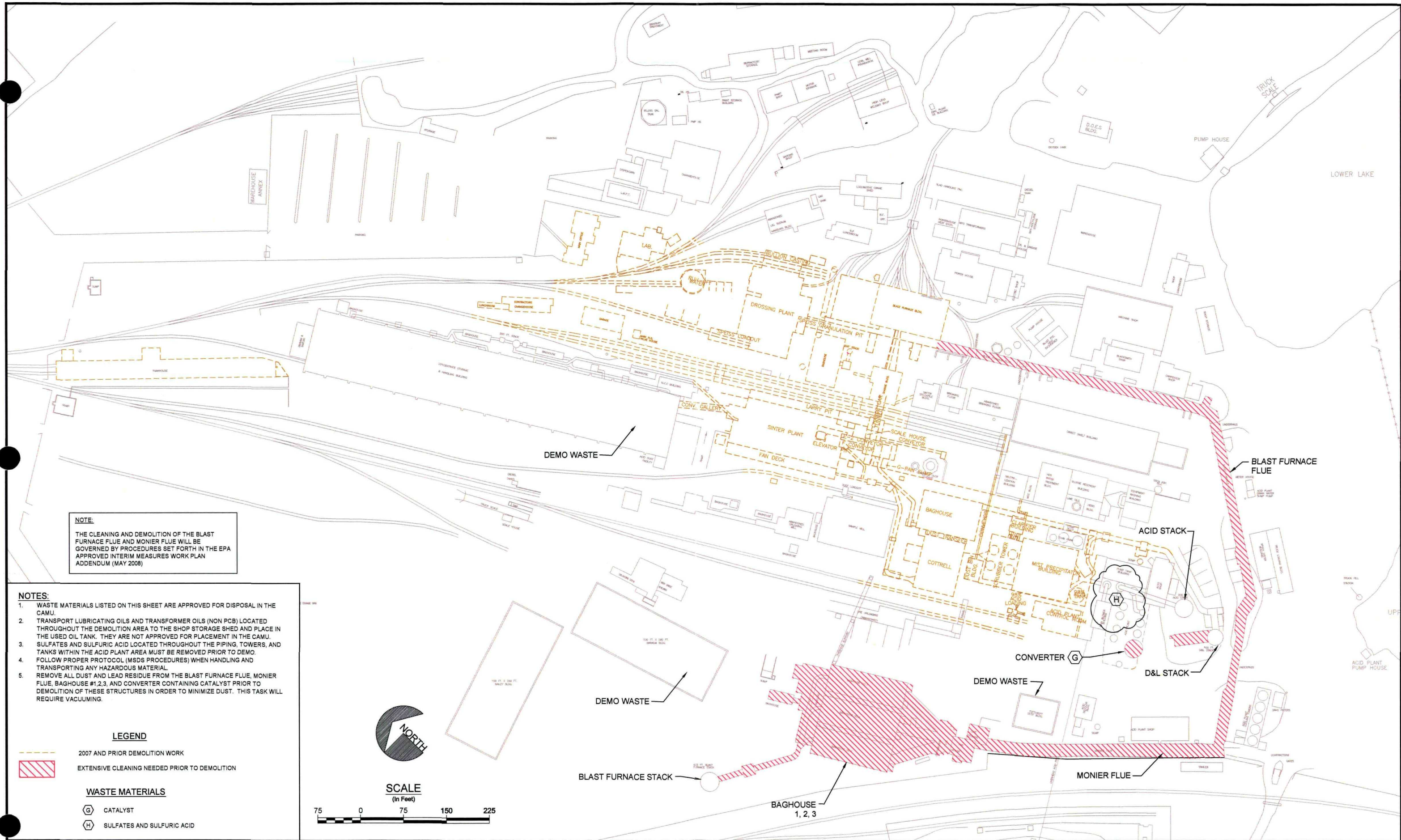
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DRAWN BY	JSD 12/12/06
CHECKED BY	MWR 1/19/06
APPROVED BY	MJO 1/19/06
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Hydrometrics, Inc.
Consulting Scientists and Engineers
Helena, Montana 59601
9000 Broadway Avenue
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ASARCO LLC - EAST HELENA PLANT
2008 CLEANING & DEMOLITION PROJECT

SITE PLOT PLAN

DRAWING FILE NUMBER	705403H004.dwg
AUTOCAD 2004 DRAWING (DWG)	
SHEET NUMBER	2
REV	4



NOTE:
THE CLEANING AND DEMOLITION OF THE BLAST FURNACE FLUE AND MONIER FLUE WILL BE GOVERNED BY PROCEDURES SET FORTH IN THE EPA APPROVED INTERIM MEASURES WORK PLAN ADDENDUM (MAY 2008)

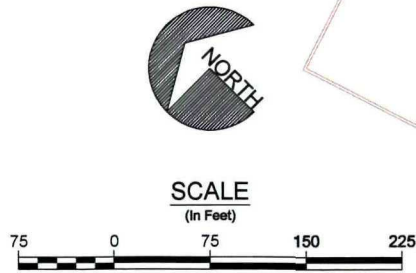
- NOTES:**
1. WASTE MATERIALS LISTED ON THIS SHEET ARE APPROVED FOR DISPOSAL IN THE CAMU.
 2. TRANSPORT LUBRICATING OILS AND TRANSFORMER OILS (NON PCB) LOCATED THROUGHOUT THE DEMOLITION AREA TO THE SHOP STORAGE SHED AND PLACE IN THE USED OIL TANK. THEY ARE NOT APPROVED FOR PLACEMENT IN THE CAMU.
 3. SULFATES AND SULFURIC ACID LOCATED THROUGHOUT THE PIPING, TOWERS, AND TANKS WITHIN THE ACID PLANT AREA MUST BE REMOVED PRIOR TO DEMO. FOLLOW PROPER PROTOCOL (MSDS PROCEDURES) WHEN HANDLING AND TRANSPORTING ANY HAZARDOUS MATERIAL.
 4. REMOVE ALL DUST AND LEAD RESIDUE FROM THE BLAST FURNACE FLUE, MONIER FLUE, BAGHOUSE #1,2,3, AND CONVERTER CONTAINING CATALYST PRIOR TO DEMOLITION OF THESE STRUCTURES IN ORDER TO MINIMIZE DUST. THIS TASK WILL REQUIRE VACUUMING.


LEGEND

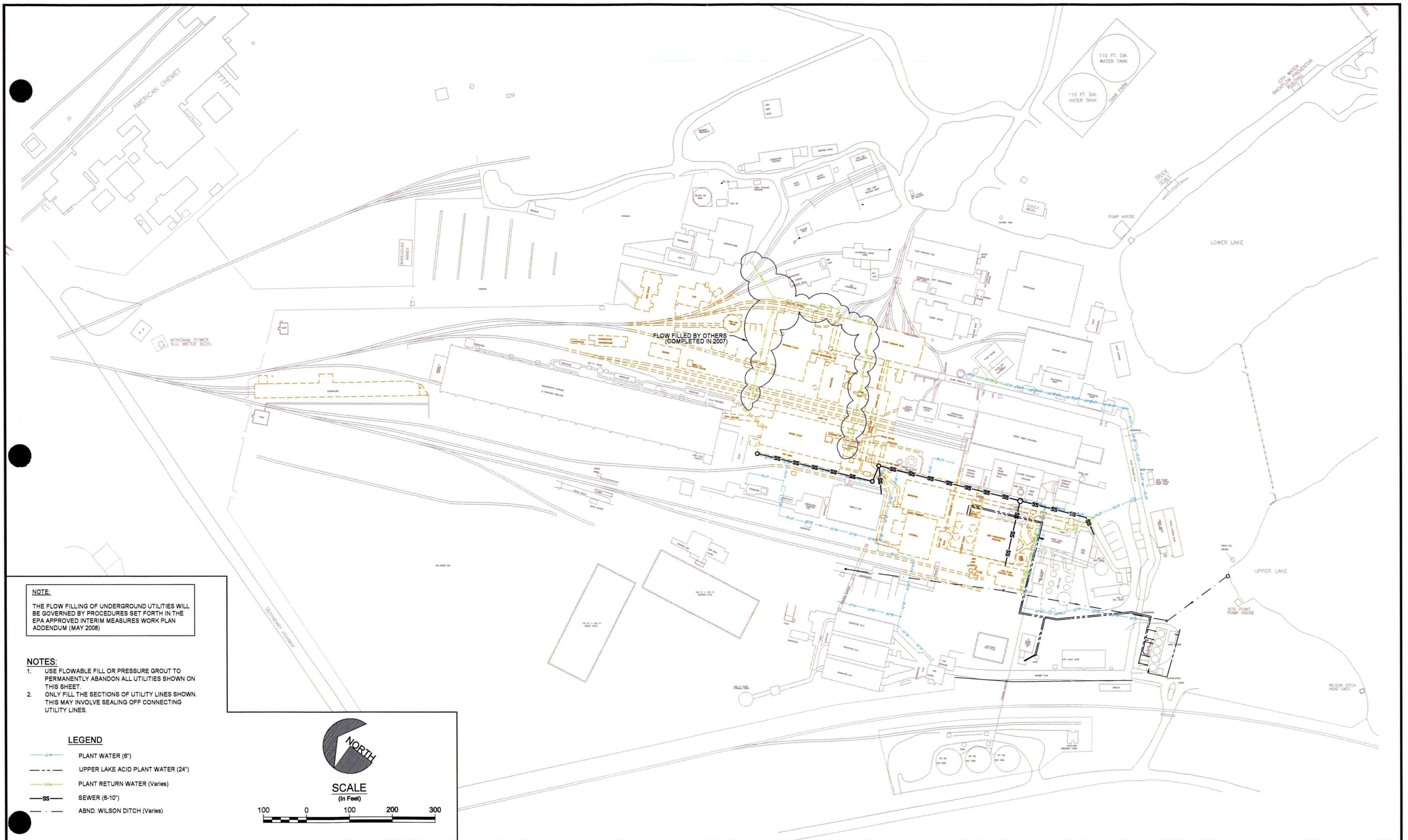
--- 2007 AND PRIOR DEMOLITION WORK
--- EXTENSIVE CLEANING NEEDED PRIOR TO DEMOLITION

WASTE MATERIALS

(G) CATALYST
(H) SULFATES AND SULFURIC ACID



REVISIONS	NO	BY	DATE	DESCRIPTION	REVISIONS	NO	BY	DATE	SCALE VERIFICATION BAR IS ONE INCH ON ORIGINAL DRAWING 0 1 IF NOT ONE INCH ON THIS SHEET, ADJUST SCALES ACCORDINGLY	Project No.: 7054			Hydrometrics, Inc. Consulting Scientists and Engineers Helena, Montana 59601 2001 Broadway Avenue (406) 443-4100		ASARCO LLC - EAST HELENA PLANT		DRAWING FILE NUMBER		
											DRAWN BY	JSD			1/19/07	2008 CLEANING & DEMOLITION PROJECT		705403H005.dwg	
											CHECKED BY	MWR			1/24/07	AUTOCAD 2004 DRAWING (DWG)			
											APPROVED BY	MJO			1/24/07	WASTE		SHEET NUMBER	REV
											SCALE: 1"=75'				LOCATION MAP		3	△	



NOTE:
THE FLOW FILLING OF UNDERGROUND UTILITIES WILL BE GOVERNED BY PROCEDURES SET FORTH IN THE EPA APPROVED INTERIM MEASURES WORK PLAN ADDENDUM (MAY 2008)

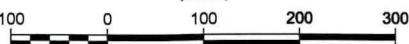
- NOTES:**
1. USE FLOWABLE FILL OR PRESSURE GROUT TO PERMANENTLY ABANDON ALL UTILITIES SHOWN ON THIS SHEET.
 2. ONLY FILL THE SECTIONS OF UTILITY LINES SHOWN. THIS MAY INVOLVE SEALING OFF CONNECTING UTILITY LINES.

LEGEND

- PW — PLANT WATER (6")
- UPLA — UPPER LAKE ACID PLANT WATER (24")
- RW — PLANT RETURN WATER (Varies)
- SS — SEWER (6-10")
- WD — ABND. WILSON DITCH (Varies)



SCALE
(In Feet)



REVISIONS	NO	BY	DATE	DESCRIPTION	REVISIONS	NO	BY	DATE	DESCRIPTION

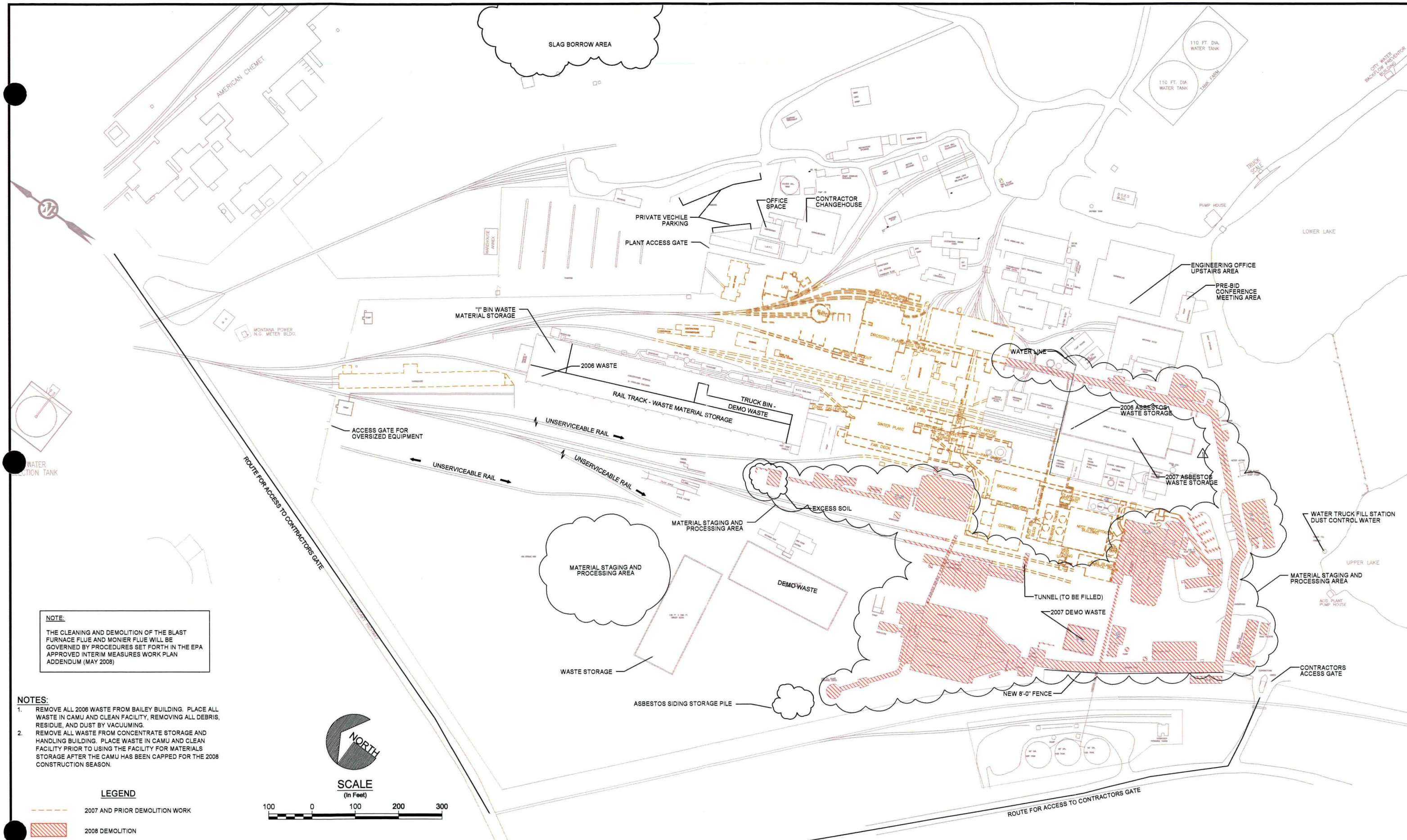
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Project No.: 7054
DRAWN BY: GWL 1/19/07
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ASARCO LLC - EAST HELENA PLANT
2008 CLEANING & DEMOLITION PROJECT
UNDERGROUND UTILITIES
TO BE FLOW FILLED

DRAWING FILE NUMBER	
705403H009.dwg	
AUTOCAD 2004 DRAWING (DWG)	
SHEET NUMBER	REV
7	△



NOTE:
THE CLEANING AND DEMOLITION OF THE BLAST FURNACE FLUE AND MONIER FLUE WILL BE GOVERNED BY PROCEDURES SET FORTH IN THE EPA APPROVED INTERIM MEASURES WORK PLAN ADDENDUM (MAY 2008)

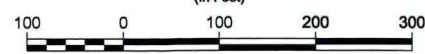
- NOTES:**
1. REMOVE ALL 2006 WASTE FROM BAILEY BUILDING. PLACE ALL WASTE IN CAMU AND CLEAN FACILITY, REMOVING ALL DEBRIS, RESIDUE, AND DUST BY VACUUMING.
 2. REMOVE ALL WASTE FROM CONCENTRATE STORAGE AND HANDLING BUILDING. PLACE WASTE IN CAMU AND CLEAN FACILITY PRIOR TO USING THE FACILITY FOR MATERIALS STORAGE AFTER THE CAMU HAS BEEN CAPPED FOR THE 2008 CONSTRUCTION SEASON.

LEGEND

- 2007 AND PRIOR DEMOLITION WORK
- 2008 DEMOLITION



SCALE
(In Feet)



REVISIONS	NO	BY	DATE	DESCRIPTION	REVISIONS	NO	BY	DATE	DESCRIPTION

SCALE VERIFICATION
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CHECKED BY	MWR 1/19/06
APPROVED BY	MJO 1/24/07
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ASARCO LLC - EAST HELENA PLANT
2008 CLEANING & DEMOLITION PROJECT
2008 DEMOLITION
PLAN

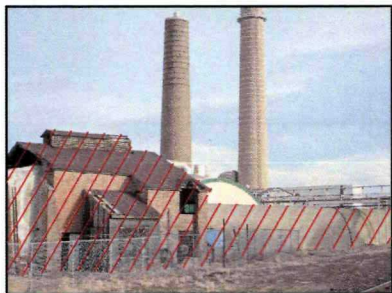
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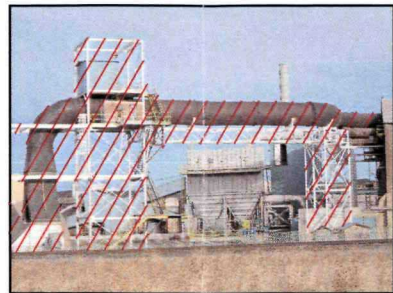
P4-18 ORE UNLOADING RAMP & OVERHEAD SUPPORTS



P4-35 BAG HOUSE BUILDINGS & DISTRIBUTION FLUE



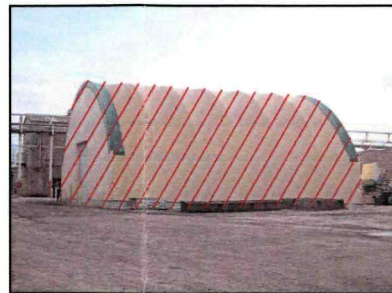
P4-34 FAN HOUSE AND MONIER FLUE



P4-33 FLUE DUCTING AND SUPPORTS



P4-32 MONIER FLUE, OVERHEAD ACID PIPES, & SUPPORTS



P4-31 DUST BUILDING (RINGLING BUILDING)



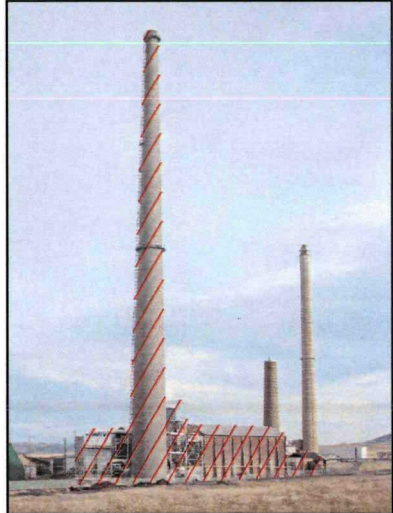
P4-30 FANHOUSE, LIME STORAGE, & FLUE



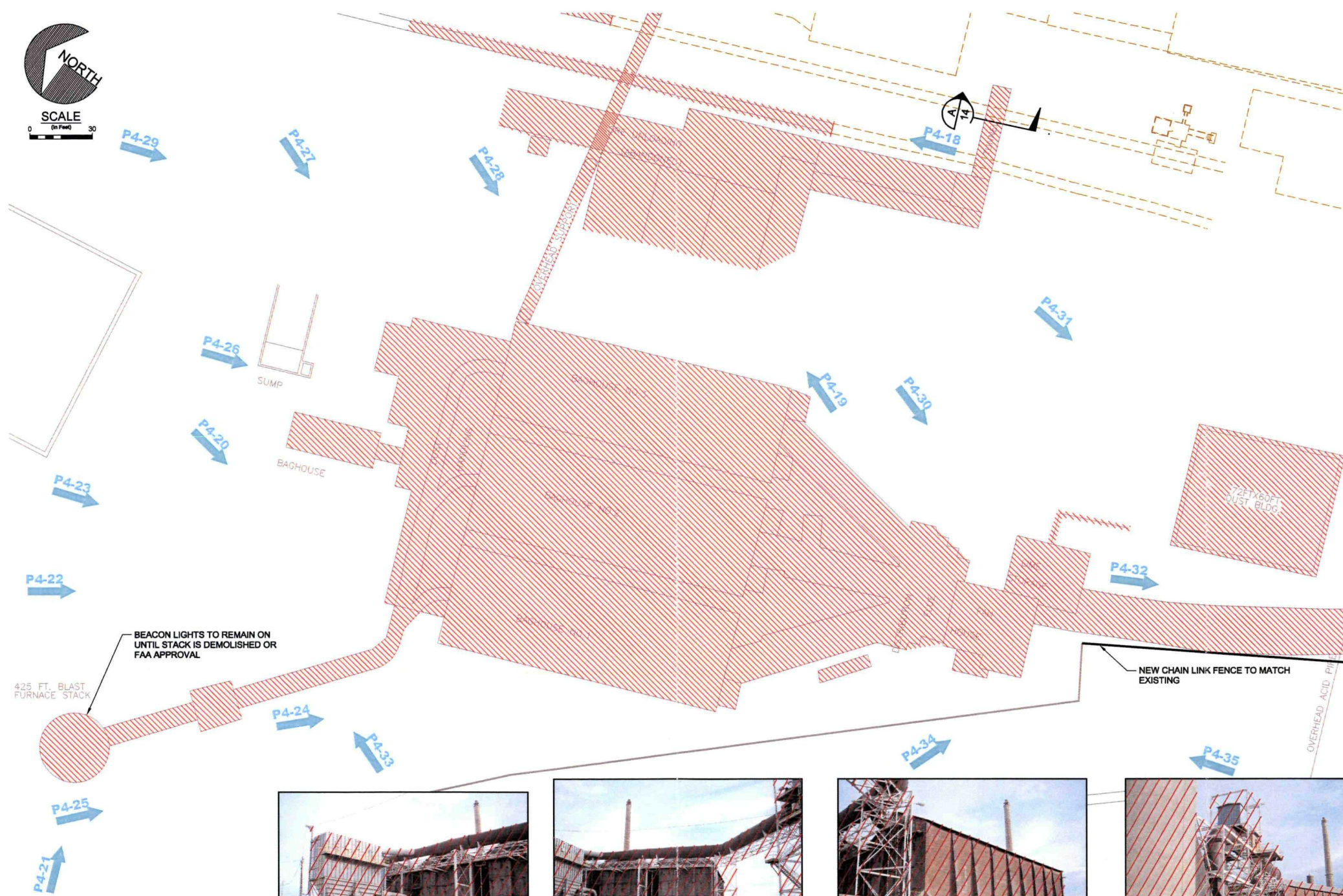
P4-19 ORE UNLOADING RAMP & MATERIAL BINS



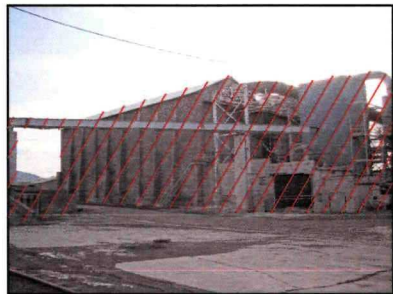
P4-20 ORE BAG HOUSE BUILDINGS & FLUE DUCTING



P4-21 420' STACK & BAGHOUSE



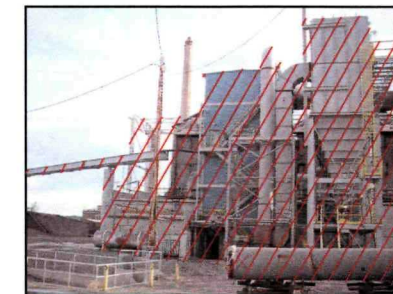
P4-29 RAILROAD TRACKS, ORE UNLOADING RAMP, OVERHEAD SUPPORTS, & BAGHOUSE



P4-28 BAGHOUSE BUILDING & DUCTING



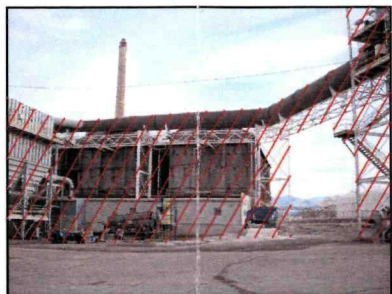
P4-27 BAGHOUSE BUILDING & DUCTING



P4-26 BAGHOUSE BUILDING & DUCTING



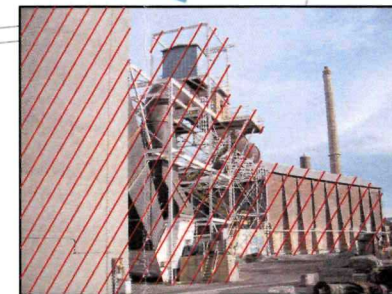
P4-22 BAGHOUSE BUILDINGS



P4-23 BAGHOUSE BUILDINGS & FLUE DUCTING



P4-24 BAGHOUSE BUILDING & FLUE DUCTING SUPPORT



P4-25 420' STACK, BAGHOUSE BUILDING, FLUE DUCTING, & FLUE DUCTING SUPPORTS

- LEGEND**
- 2007 AND PRIOR DEMOLITION WORK
 - EXISTING STRUCTURES
 - 2008 DEMOLITION WORK
 - P4-22 PHOTO NUMBER AND VIEWING ANGLE
 - MW MONITORING WELL - DO NOT DEMO

- NOTES:**
- 2008 DEMOLITION STRUCTURES ARE MARKED WITH RED X'S AND STRUCTURES MARKED WITH BLACK X'S ARE TO BE LEFT UNDISTURBED.
 - DEMOLISH STRUCTURES TO EXTERIOR GRADE UNLESS CONSTRUCTED OF BRICK. DEMOLISH BRICK STRUCTURES TO 3 FEET BELOW GRADE.

NOTE:
THE CLEANING AND DEMOLITION OF THE BLAST FURNACE FLUE AND MONIER FLUE WILL BE GOVERNED BY PROCEDURES SET FORTH IN THE EPA APPROVED INTERIM MEASURES WORK PLAN ADDENDUM (MAY 2008)

NO	BY	DATE	DESCRIPTION

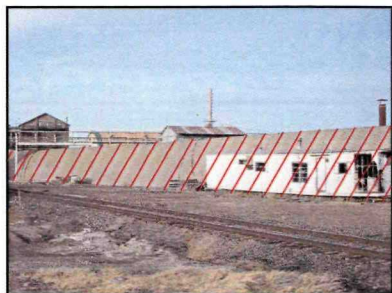
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CHECKED BY: MWR 1/19/07
APPROVED BY: MJO 1/19/07
SCALE: 1"=30'

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ASARCO LLC - EAST HELENA PLANT 2008 CLEANING & DEMOLITION PROJECT 2008 DEMOLITION STACK AND BAGHOUSE AREA		DRAWING FILE NUMBER 705403H010.dwg AUTOCAD 2004 DRAWING (DWG)
		SHEET NUMBER 9
		REV



P4-36 MONIER FLUE & TRAILER



P4-37 ACID PLANT COOLING TOWERS



P4-38 ACID PLANT, MAIN BLOWER BUILDING, & STACKS



P4-39 ACID DECOLOR BUILDING & OVERHEAD ACID PIPELINE

LEGEND

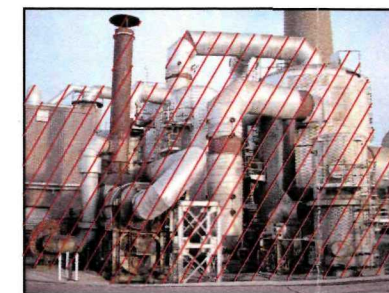
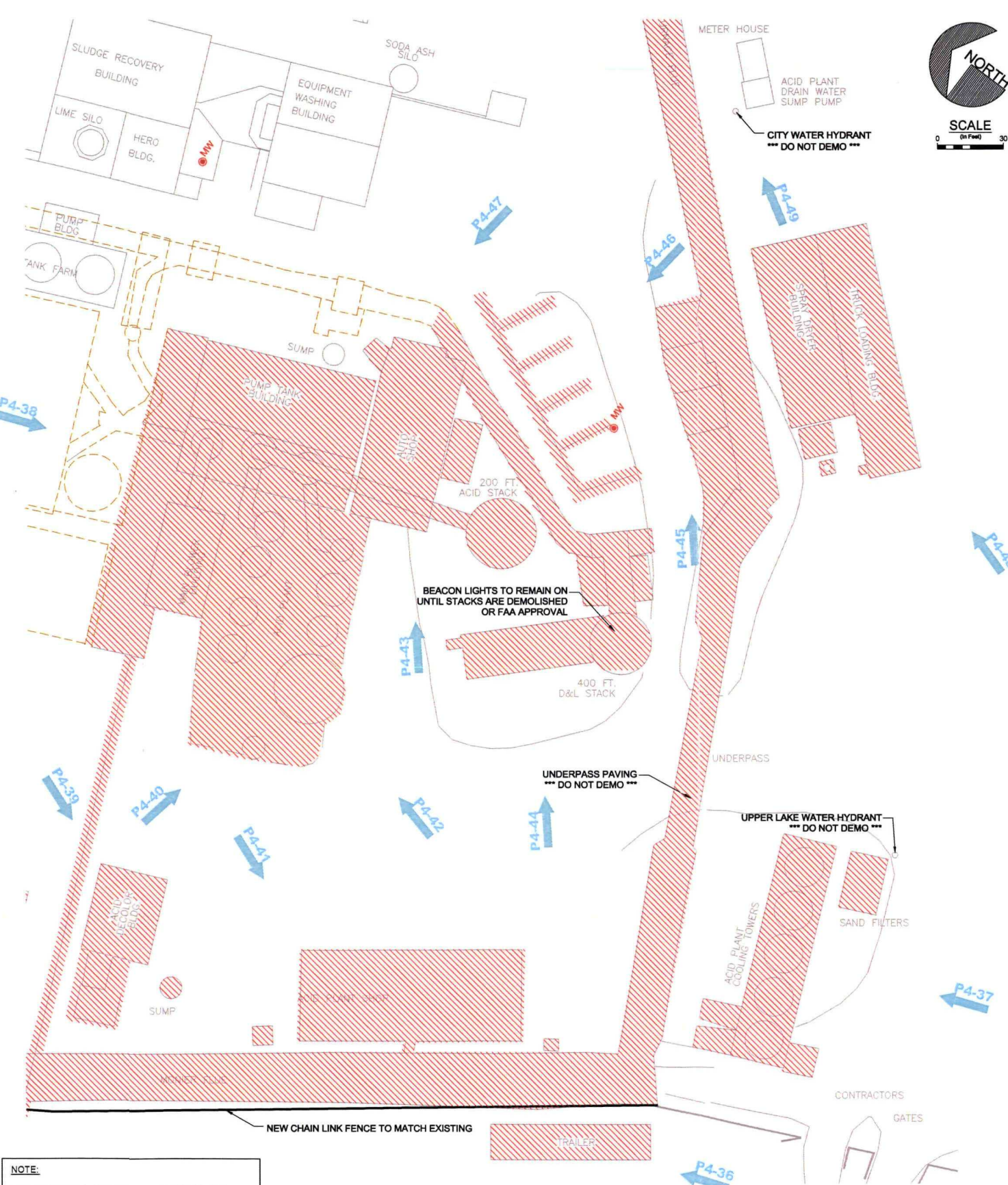
- 2007 AND PRIOR DEMOLITION WORK
- EXISTING STRUCTURES
- 2008 DEMOLITION WORK
- P4-41 PHOTO NUMBER AND VIEWING ANGLE
- MW MONITORING WELL - DO NOT DEMO

NOTES:

- 2008 DEMOLITION STRUCTURES ARE MARKED WITH RED X'S AND STRUCTURES MARKED WITH BLACK X'S ARE TO BE LEFT UNDISTURBED.
- IT MAY BE NECESSARY TO REMOVE PARTS OF TEMPORARY CAPS PRIOR TO DEMOLITION. ANY DAMAGED OR REMOVED TEMPORARY CAPS MUST BE REPLACED. DEMOLISH STRUCTURES TO EXTERIOR GRADE UNLESS CONSTRUCTED OF BRICK. DEMOLISH BRICK STRUCTURES TO 3 FEET BELOW GRADE.

NOTE:

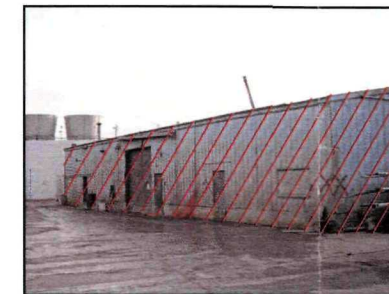
THE CLEANING AND DEMOLITION OF THE BLAST FURNACE FLUE AND MONIER FLUE WILL BE GOVERNED BY PROCEDURES SET FORTH IN THE EPA APPROVED INTERIM MEASURES WORK PLAN ADDENDUM (MAY 2008)



P4-40 ACID PLANT & PIPING



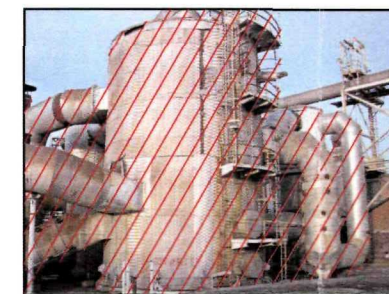
P4-45 FURNACE FLUE



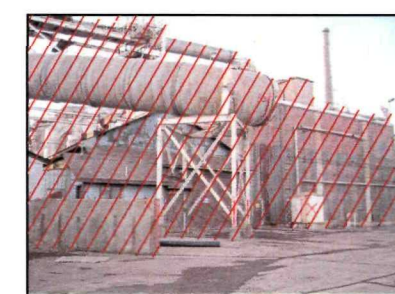
P4-41 ACID PLANT SHOP



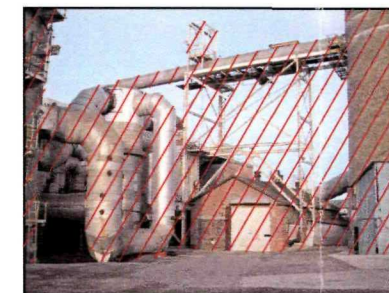
P4-46 MATERIAL STORAGE BINS



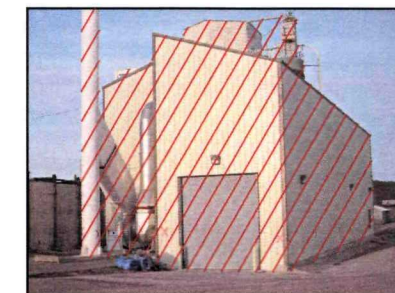
P4-42 ACID PLANT CONVERTOR & PIPING



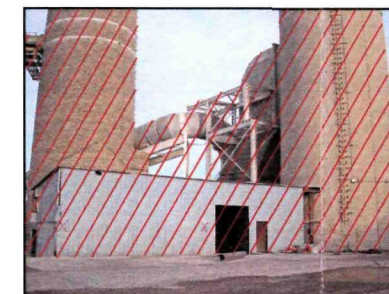
P4-47 ACID PLANT AND PIPING



P4-43 ACID PLANT, AUTO SHOP, & 200' STACK



P4-48 SPRAY DRYER BUILDING & TRUCK LOADING BUILDING



P4-44 STORAGE BUILDING, 200' STACK, & 400' STACK



P4-49 FURNACE FLUE & OVERHEAD PIPE SUPPORTS

NO	BY	DATE	DESCRIPTION

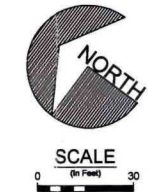
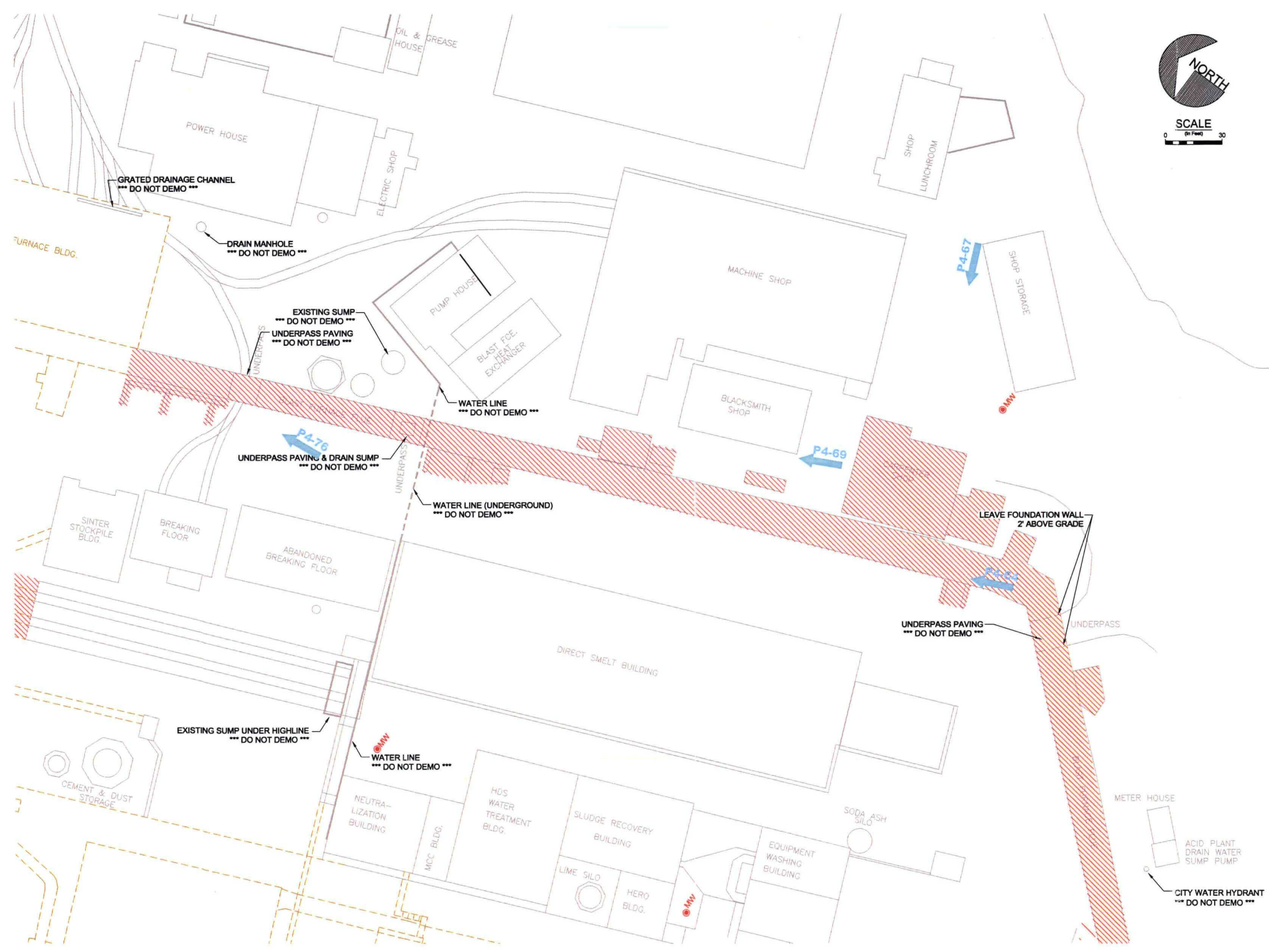
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CHECKED BY: MWR	1/19/07
APPROVED BY: MJO	1/19/07
SCALE: 1"=30'	

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ASARCO LLC - EAST HELENA PLANT
2008 CLEANING & DEMOLITION PROJECT
2008 DEMOLITION
MONIER FLUE AND ACID PLANT AREA

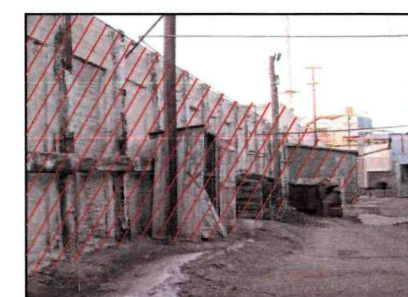
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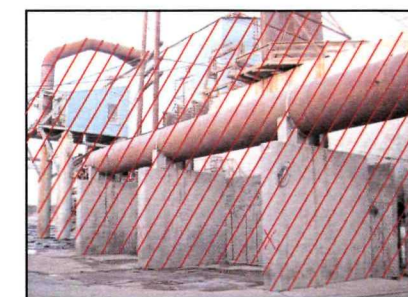
P4-64 WEST SIDE OF BLAST FURNACE FLUE



P4-67 CARPENTER SHOP & MISC. OUT BUILDINGS



P4-69 EAST SIDE OF BLAST FURNACE FLUE & MISC. STRUCTURES



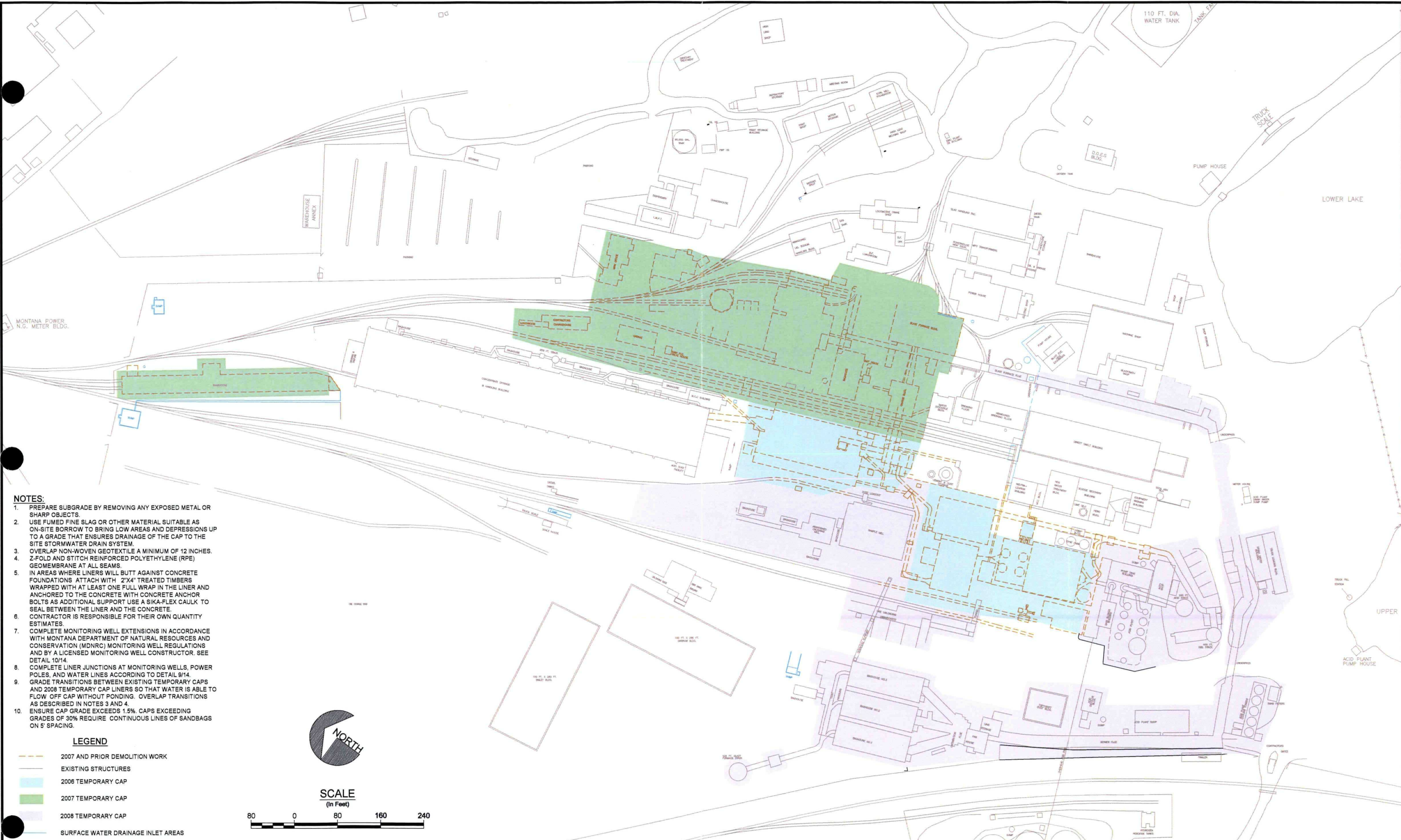
P4-76 BLAST FURNACE FLUE, BINS, & DUCT SUPPORT

- LEGEND**
- 2007 AND PRIOR DEMOLITION WORK
 - EXISTING STRUCTURES
 - 2008 DEMOLITION WORK
 - P4-1 PHOTO NUMBER AND VIEWING ANGLE
 - MW MONITORING WELL - DO NOT DEMO

- NOTES:**
- 2008 DEMOLITION STRUCTURES ARE MARKED WITH RED X'S AND STRUCTURES MARKED WITH BLACK X'S ARE TO BE LEFT UNDISTURBED.
 - DEMOLISH STRUCTURES TO EXTERIOR GRADE UNLESS CONSTRUCTED OF BRICK.
 - DEMOLISH BRICK STRUCTURES TO 3 FEET BELOW GRADE.

NOTE:
THE CLEANING AND DEMOLITION OF THE BLAST FURNACE FLUE AND MONIER FLUE WILL BE GOVERNED BY PROCEDURES SET FORTH IN THE EPA APPROVED INTERIM MEASURES WORK PLAN ADDENDUM (MAY 2008)

REVISIONS				REVISIONS				SCALE VERIFICATION		Project No.: 7054		Hydrometrics, Inc.		ASARCO LLC - EAST HELENA PLANT		DRAWING FILE NUMBER	
NO	BY	DATE	DESCRIPTION	NO	BY	DATE	DESCRIPTION	BAR IS ONE INCH ON ORIGINAL DRAWING	0	DRAWN BY	JSD/LT	1/17/07	Consulting Scientists and Engineers	2008 CLEANING & DEMOLITION PROJECT		705403H013.dwg	
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										APPROVED BY	MJO	1/19/07	3020 Buchanan Avenue	BLAST FURNACE FLUE AREA		SHEET NUMBER	
										SCALE: 1"=30'			(406) 448-4180			REV	
																12	



- NOTES:**
1. PREPARE SUBGRADE BY REMOVING ANY EXPOSED METAL OR SHARP OBJECTS.
 2. USE FUMED FINE SLAG OR OTHER MATERIAL SUITABLE AS ON-SITE BORROW TO BRING LOW AREAS AND DEPRESSIONS UP TO A GRADE THAT ENSURES DRAINAGE OF THE CAP TO THE SITE STORMWATER DRAIN SYSTEM.
 3. OVERLAP NONWOVEN GEOTEXTILE A MINIMUM OF 12 INCHES.
 4. 2-FOLD AND STITCH REINFORCED POLYETHYLENE (RPE) GEOMEMBRANE AT ALL SEAMS.
 5. IN AREAS WHERE LINERS WILL BUTT AGAINST CONCRETE FOUNDATIONS, ATTACH WITH 2"x4" TREATED TIMBERS WRAPPED WITH AT LEAST ONE FULL WRAP IN THE LINER AND ANCHORED TO THE CONCRETE WITH CONCRETE ANCHOR BOLTS AS ADDITIONAL SUPPORT USE A SIKA-FLEX CAULK TO SEAL BETWEEN THE LINER AND THE CONCRETE.
 6. CONTRACTOR IS RESPONSIBLE FOR THEIR OWN QUANTITY ESTIMATES.
 7. COMPLETE MONITORING WELL EXTENSIONS IN ACCORDANCE WITH MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION (MDNRC) MONITORING WELL REGULATIONS AND BY A LICENSED MONITORING WELL CONSTRUCTOR. SEE DETAIL 10/14.
 8. COMPLETE LINER JUNCTIONS AT MONITORING WELLS, POWER POLES, AND WATER LINES ACCORDING TO DETAIL 9/14.
 9. GRADE TRANSITIONS BETWEEN EXISTING TEMPORARY CAPS AND 2008 TEMPORARY CAP LINERS SO THAT WATER IS ABLE TO FLOW OFF CAP WITHOUT PONDING. OVERLAP TRANSITIONS AS DESCRIBED IN NOTES 3 AND 4.
 10. ENSURE CAP GRADE EXCEEDS 1.5%. CAPS EXCEEDING GRADES OF 30% REQUIRE CONTINUOUS LINES OF SANDBAGS ON 5' SPACING.

LEGEND

- 2007 AND PRIOR DEMOLITION WORK
- EXISTING STRUCTURES
- 2006 TEMPORARY CAP
- 2007 TEMPORARY CAP
- 2008 TEMPORARY CAP
- SURFACE WATER DRAINAGE INLET AREAS

NO	BY	DATE	DESCRIPTION

NO	BY	DATE	DESCRIPTION

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(406) 443-4900

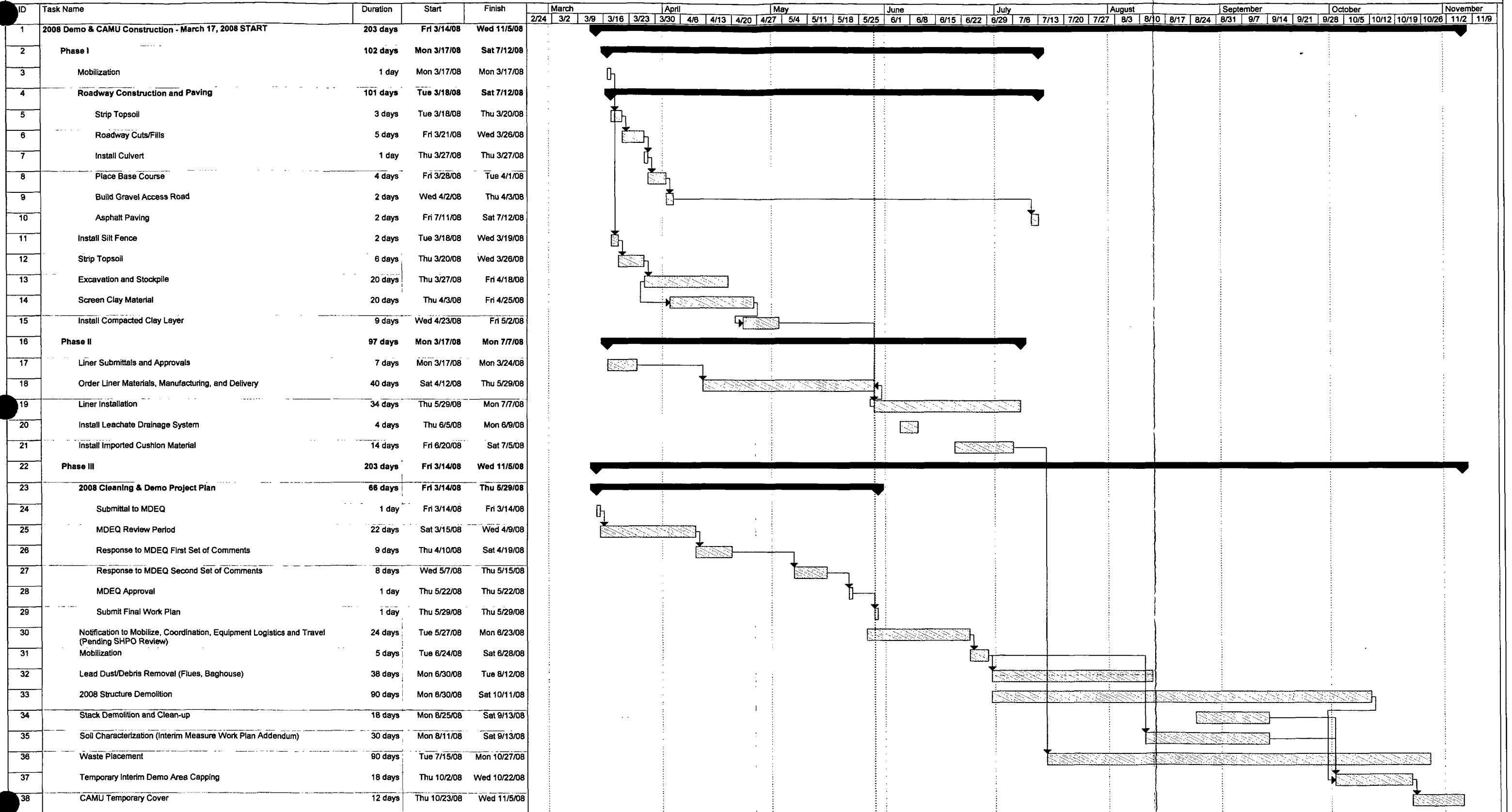
ASARCO LLC - EAST HELENA PLANT
2008 CLEANING & DEMOLITION PROJECT
2008 COVER SYSTEM AND INTERIM CAP - PLAN

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ATTACHMENT B

CONSTRUCTION SCHEDULE

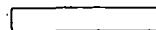


2008 CLEANING AND DEMOLITION PROJECT ASARCO East Helena Facility



Project: Schedule
Date: Thu 5/29/08
2008 Demo CAMU with Perm Cap (6-

Task  Milestone 
Progress  Summary 

Rolled Up Task  Rolled Up Progress 
Rolled Up Milestone  Split 

External Tasks  Group By Summary 
Project Summary  Deadline 